



Canadian Table of Frequency Allocations 9 kHz to 275 GHz

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Spectrum and Radio Services Telecommunications Policy Branch Industry Canada Room 1610A, 300 Slater Street Ottawa, Ontario, Canada K1A 0C8

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Également disponible en français sous le titre Tableau canadien d'attribution des bandes de fréquences.

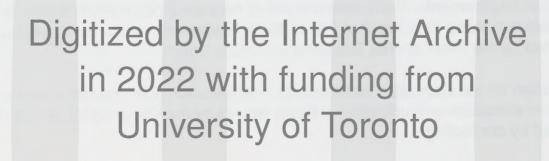
## **FOREWORD**

This Canadian Table of Frequency Allocations allocates the electromagnetic spectrum between 9 kHz and 275 GHz (275 - 400 GHz is unallocated at this time) and is based on the provisions of the Final Acts resulting from the various World Administrative Radio Conferences (WARC), including the 1992 WARC, convened by the International Telecommunication Union (ITU). The Canadian Table is intended to respond to Canadian domestic spectrum requirements. Consequently, it reflects the Department of Industry's spectrum allocation and utilization policies developed through public consultation. The Canadian Table includes the revisions made to the frequency allocations in October 1994. It should be noted, therefore, that the Canadian Table differs, where necessary, from the ITU Table.

Portions of this Canadian Table and the associated general information will, from time to time, need to be revised to reflect international changes and to take into account Canadian requirements. Such revisions will of necessity occur when changes to the ITU Table are made as a result of future World Radiocommunication Conferences convened by the International Telecommunication Union.

Information on the Canadian Table and its interpretation with respect to various spectrum allocation and utilization policies issued by the Department can best be obtained by contacting:

Director
Spectrum and Radio Services
Telecommunications Policy Branch
Industry Canada
Room 1610A, 300 Slater Street
Ottawa, Ontario, Canada K1A 0C8



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## **DEFINITIONS**

The following terms and definitions are relevant to the Canadian Table of Frequency Allocations. These terms and definitions are extracted from the International Radio Regulations of the International Telecommunication Union. The regulations should be consulted for a more comprehensive listing.

## 1. General Terms

Administration: Any governmental department or service responsible for discharging the obligations undertaken in the Convention of the International Telecommunication Union and the Regulations.

Allocation (of a frequency band): Entry in the Table of Frequency Allocations of a given frequency band for the purpose of its use by one or more terrestrial or space radiocommunication services or the radio astronomy service under specified conditions. This term shall also be applied to the frequency band concerned.

Allotment (of a radio frequency or radio frequency channel): Entry of a designated frequency channel in an agreed plan, adopted by a competent conference, for use by one or more administrations for a terrestrial or space radiocommunication service in one or more identified countries or geographical areas and under specified conditions.

Assignment (of a radio frequency or radio frequency channel): Authorization given by an administration to a radio station to use a radio frequency or radio frequency channel under specified conditions.

Coordinated Universal Time (UTC): Time scale, based on the second (SI), as defined and recommended by the CCIR, and maintained by the International Time Bureau (BIH).

For most practical purposes associated with the Radio Regulations, UTC is equivalent to mean solar time at the prime meridian (0° longitude), formerly expressed in GMT.

Industrial, Scientific and Medical (ISM) Applications (of radio frequency energy): Operation of equipment or appliances designed to generate and use locally radio frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunications.

Radio: A general term applied to the use of radio waves.

Radio Astronomy: Astronomy based on the reception of radio waves of cosmic origin.

Radiocommunication: Telecommunication by means of radio waves.

Radiodetermination: The determination of the position, velocity and or other characteristics of an object, or the obtaining of information relating to those parameters, by means of the propagation properties of radio waves.

Radio Direction Finding: Radiodetermination using the reception of radio waves for the purpose of determining the direction of a station or object.

Radiolocation: Radiodetermination used for purposes other than those of radionavigation.

Radionavigation: Radiodetermination used for the purpose of navigation, including obstruction warning.

Radio Waves or Hertzian Waves: Electromagnetic waves of frequencies arbitrarily lower than 3 000 GHz, propagated in space without artificial guide.

Space Radiocommunication: Any radiocommunication involving the use of one or more space stations or the use of one or more reflecting satellites or other objects in space.

Terrestrial Radiocommunication: Any radiocommunication other than space radiocommunication or radio astronomy.

## 2. Radio Services

Aeronautical Fixed Service: A radiocommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air transport.

Aeronautical Mobile-Satellite Service: A mobile-satellite service in which mobile earth stations are located on-board aircraft; survival-craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

Aeronautical Mobile-Satellite (OR)<sup>1</sup> Service: An aeronautical mobile-satellite service intended for communications, including those relating to flight coordination, primarily outside national and international civil air routes.

Aeronautical Mobile-Satellite (R)<sup>2</sup> Service: An aeronautical mobile-satellite service reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes.

Aeronautical Mobile Service: A mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival-craft stations may participate; emergency position-indicating radiobeacon stations may also participate in this service on designated distress and emergency frequencies.

Aeronautical Mobile (OR)<sup>1</sup> Service: An aeronautical mobile service intended for communications, including those relating to flight coordination, primarily outside national or international civil air routes.

Aeronautical Mobile  $(R)^2$  Service: An aeronautical mobile service reserved for communications relating to safety and regularity of flight, primarily along national or international civil air routes.

Aeronautical Radionavigation-Satellite Service: A radionavigation-satellite service in which earth stations are located on-board aircraft.

<sup>1. (</sup>OR): off-route

<sup>2. (</sup>R): route

Aeronautical Radionavigation Service: A radionavigation service intended for the benefit and for the safe operation of aircraft.

Amateur-Satellite Service: A radiocommunication service using space stations on earth satellites for the same purpose as those of amateur service.

Amateur Service: A radiocommunication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs; that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.

*Broadcasting-Satellite Service:* A radiocommunication service in which signals transmitted or retransmitted by space stations are intended for direct reception by the general public.

In the broadcasting-satellite service, the term *direct reception* shall encompass both individual reception and community reception.

*Broadcasting Service:* A radiocommunication service in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, television transmissions or other types of transmission.

Earth Exploration-Satellite Service: A radiocommunication service between earth stations and one or more space stations, which may include links between space stations, in which:

- information relating to the characteristics of the Earth and its natural phenomena, including data relating to the state of the environment, is obtained from active sensors or passive sensors on earth satellites;
- similar information is collected from airborne or Earth-based platforms;
- such information may be distributed to earth stations within the system concerned;
- platform interrogation may be included.

This service may also include feeder links necessary for its operation.

Fixed-Satellite Service: A radiocommunication service between earth stations at given positions, when one or more satellites are used; the given position may be a specified point or any fixed point within specified areas; in some cases this service includes satellite-to-satellite links, which may also be operated in the inter-satellite service; the fixed-satellite service may also include feeder links for other space radiocommunication services.

Fixed Service: A radiocommunication service between specified fixed points.

Inter-satellite Service: A radiocommunication service providing links between artificial earth satellites.

Land Mobile-Satellite Service: A mobile-satellite service in which mobile earth stations are located on land.

Land Mobile Service: A mobile service between base stations and land mobile stations or between land mobile stations.

Maritime Mobile-Satellite Service: A mobile-satellite service in which mobile earth stations are located on-board ships; survival-craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

*Maritime Mobile Service:* A mobile service between coast stations and ship stations, or between ship stations, or between associated on-board communication stations; survival-craft stations and emergency position-indicating radiobeacon stations may also participate in this service.

Maritime Radionavigation-Satellite Service: A radionavigation-satellite service in which earth stations are located on-board ships.

Maritime Radionavigation Service: A radionavigation service intended for the benefit and for the safe operation of ships.

*Meteorological Aids Service:* A radiocommunication service used for meteorological, including hydrological, observations and exploration.

Meteorological-Satellite Service: An earth exploration-satellite service for meteorological purposes.

Mobile-Satellite Service: A radiocommunication service:

- between mobile earth stations and one or more space stations, or between space stations used by this service; or
- between mobile earth stations by means of one or more space stations.

This service may also include feeder links necessary for its operation.

Mobile Service: A radiocommunication service between mobile and land stations, or between mobile stations.

Radio Astronomy Service: A service involving the use of radio astronomy.

Radiocommunication Service: A service as defined in this section involving the transmission, emission and/or reception of radio waves to specific telecommunication purposes.

In these regulations, unless otherwise stated, any radiocommunication service relates to terrestrial radiocommunication.

Radiodetermination-Satellite Service: A radiocommunication service for the purpose of radiodetermination involving the use of one of more space stations.

This service may also include feeder links necessary for its own operation.

Radiodetermination Service: A radiocommunication service for the purpose of radiodetermination.

Radiolocation-Satellite Service: A radiodetermination-satellite service used for the purpose of radiolocation.

This service may also include feeder links necessary for its operation.

Radiolocation Service: A radiodetermination service for the purpose of radiolocation.

Radionavigation-Satellite Service: A radiodetermination-satellite service for the purpose of radionavigation

Radionavigation Service: A radiodetermination service for the purpose of radionavigation.

Safety Service: Any radiocommunication service used permanently or temporarily for the safeguarding of human life and property.

Space Operation Service: A radiocommunication service concerned exclusively with the operation of spacecraft, in particular, space tracking, space telemetry and space telecommand.

These functions will normally be provided within the service in which the space station is operating.

Space Research Service: A radiocommunication service in which spacecraft or other objects in space are used for scientific or technological research purposes.

Standard Frequency and Time Signal-Satellite Service: A radiocommunication service using space stations on earth satellites for the same purpose as those of standard frequency and time signal service.

This service may also include feeder links necessary for its operation.

Standard Frequency and Time Signal Service: A radiocommunication service for scientific, technical and other purposes, providing the transmission of specified frequencies, time signals, or both, of stated high precision, intended for general reception.

## 3. Categories of Services

Primary, Permitted and Secondary Services

Where, in this Table, a band is indicated as allocated to more than one service, either on a worldwide or Regional basis, such services are listed in the following order:

- a) services the names of which are printed in capital letters (example FIXED): these are called "primary" services;
- b) services the names of which are printed in capital letters between oblique strokes (example: /RADIOLOCATION/); these area called "permitted" services;

c) services the names of which are printed in capital and lower-case letters (example: Mobile); these are called "secondary" services.

Additional remarks shall be printed in lower-case letters (example: MOBILE except aeronautical mobile).

Permitted and primary services have equal rights, except that, in the preparation of frequency plans, the primary service, compared with the permitted service, shall have prior choice of frequencies.

Stations of a secondary service:

- a) shall not cause harmful interference to stations of primary or permitted services to which frequencies are already assigned or to which frequencies may be assigned at a later date;
- b) cannot claim protection from harmful interference from stations of a primary or permitted service to which frequencies are already assigned or may be assigned at a later date;
- c) can claim protection, however, from harmful interference from stations of the same or other secondary service(s) to which frequencies may be assigned at a later date.

The heading of the international portion of this Table includes three columns, each of which corresponds to one of the ITU Regions. Where an allocation occupies the whole of the width of the ITU Table or only one or two of the three columns, this is a worldwide allocation or a Regional allocation, respectively. The frequency band referred to in each allocation is indicated in the left-hand top corner of the part of the box of the Table concerned.

The footnote references which appear in the Table below the allocated service or services apply to the whole of the allocation concerned.

The footnote references which appear to the right of the name of a service are applicable only to that particular service.





## FREQUENCY ALLOCATION TABLES

ITU ALLOCATION TO SERVICES

| REGION 3 |                 |         |                 |                                   | D TIME SIGNAL                                  |                                   | 70-72 RADIONAVIGATION 451 Fixed Maritime Mobile 448 450                                   | 72-84<br>FIXED<br>MARITIME MOBILE 448<br>RADIONAVIGATION 451        | 84-86<br>RADIONAVIGATION 451<br>Fixed<br>Maritime Mobile 448<br>450 | 86-90<br>FIXED<br>MARITIME MOBILE 448<br>RADIONAVIGATION 451 |
|----------|-----------------|---------|-----------------|-----------------------------------|--|-----------------------------------|---|---|---|--|
| REGION 2 | (not allocated) | 444 445 | RADIONAVIGATION | FIXED MARITIME MOBILE 448 446 447 | STANDARD FREQUENCY AND TIME SIGNAL<br>(20 kHz) | FIXED MARITIME MOBILE 448 447 449 | 70-90<br>FIXED<br>MARITIME MOBILE 448<br>MARITIME<br>RADIONAVIGATION 451<br>Radiolocation |   |   | 452  |
| REGION 1 | Below 9         |         | 9-14            | 14-19.95                          | 19.95-20.05                                    | 20.05-70                          | 70-72<br>RADIONAVIGATION 451  | 72-84<br>FIXED<br>MARITIME MOBILE 448<br>RADIONAVIGATION 451<br>447 | 84-86<br>RADIONAVIGATION 451  | 86-90<br>FIXED<br>MARITIME MOBILE 448<br>RADIONAVIGATION     |

| (not allocated) | RADIONAVIGATION | FIXED MARITIME MOBILE 448 | STANDARD FREQUENCY AND TIME SIGNAL | FIXED MARITIME MOBILE 448 | MARITIME MOBILE 448 MARITIME RADIONAVIGATION 451 Radiolocation 452 |  |
|-----------------|-----------------|---------------------------|------------------------------------|---------------------------|--|--|
| Below 9         | 9-14            | 14-19.95                  | 19.95-20.05                        | 20.05-70                  | 76-90  |  |

ITU ALLOCATION TO SERVICES

Z L X

| REGION 3 |                                    | 110-112<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION 451 | 112-117.6 RADIONAVIGATION 451 Fixed Maritime Mobile |  | 454 455 | 117.6-126<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION 451<br>454 |                                | 454 455<br>129-130<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION 451 | 454     |
|----------|------------------------------------|--|---|--|---------|---|--------------------------------|---|---------|
| REGION 2 | RADIONAVIGATION 453 Fixed 453A 454 | 1 11 9   |   |  |         |   |                                |   | 452 454 |
| REGION 1 | 90-110                             | 110-112<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION     | 112-115<br>RADIONAVIGATION 451                      | 115-117.6<br>RADIONAVIGATION 451<br>Fixed<br>Maritime Mobile | 454 456 | 117.6-126<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION 451        | 126-129<br>RADIONAVIGATION 451 | 129-130<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION 451            | 454     |

454
110-130
FIXED
MARITIME MOBILE
MARITIME RADIONAVIGATION 451
Radiolocation
Radiolocation
A52 454

| REGION 1   | REGION 2   | REGION 3   |
|--|--|--|
| 130-148.5<br>MARITIME MOBILE<br>/FIXED/<br>454 457                               | 130-160<br>FIXED<br>MARITIME MOBILE  | 130-160<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION                           |
| 148.5-255<br>BROADCASTING  | 454  | 454  |
|  | 160-190<br>FIXED<br>459  | 160-190<br>FIXED<br>Aeronautical<br>Radionavigation                              |
| 460 461 462  | 190-200<br>AERONAUTICAL RADIONAVIGATION  | IGATION  |
| 283.5<br>ADCA  | 200-275<br>AERONAUTICAL<br>RADIONAVIGATION<br>Aeronautical Mobile                                | 200-285 AERONAUTICAL RADIONAVIGATION Aeronautical Mobile                         |
| 462 464  | 275-285<br>AERONAUTICAL  |  |
| 283.5-315 MARITIME RADIONAVIGATION (radiobeacons) 466                            | radionavigation Aeronautical Mobile Maritime Radionavigation (radiobeacons)                      |  |
| /AERONAUTICAL<br>RADIONAVIGATION/<br>465 466A                                    | 285-315 MARITIME RADIONAVIGATION (radiobeascons) 466 //AERONAUTICAL RADIONAVIGATION/             | ON<br>VIGATION/  |
| 315-325 AERONAUTICAL RADIONAVIGATION Maritime Radionavigation (radiobeacons) 466 | 315-325 MARITIME RADIONAVIGATION (radiobeacons) 466 Aeronautical Radionavigation                 | 315-325 AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons) 466 |
| 465 467  |  |  |
| 325-405<br>AERONAUTICAL<br>RADIONAVIGATION                                       | 325-335 AERONAUTICAL RADIONAVIGATION Aeronautical Mobile Maritime Radionavigation (radiobeacons) | 325-405<br>AERONAUTICAL<br>RADIONAVIGATION<br>Aeronautical Mobile                |
|  | 335-405<br>AERONAUTICAL<br>RADIONAVIGATION<br>Aeronautical Mobile                                |  |
| 465  |  |  |
| 405-415<br>RADIONAVIGATION 468   | 405-415<br>RADIONAVIGATION 468<br>Aeronautical Mobile  |  |
| 465  |  |  |

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| FIXED MARITIME MOBILE 454 | FIXED   | AERONAUTICAL RADIONAVIGATION | AERONAUTICAL RADIONAVIGATION<br>Aeronautical Mobile | MARITIME RADIONAVIGATION (radiobeacons) 466<br>/AERONAUTICAL RADIONAVIGATION/ | MARITIME RADIONAVIGATION (radiobeacons) 466<br>Aeronautical Radionavigation | AERONAUTICAL RADIONAVIGATION<br>Aeronautical Mobile<br>Maritime Radionavigation (radiobeacons) | AERONAUTICAL RADIONAVIGATION<br>Aeronautical Mobile | RADIONAVIGATION 468<br>Aeronautical Mobile |
|---------------------------|---------|------------------------------|---|---|---|--|---|--|
| 130-160                   | 160-190 | 190-200                      | 200-285   | 285-315   | 315-325   | 325-335  | 335-405   | 405-415                                    |

## ITU ALLOCATION SERVICES

|      | REGION 3 | 470A   |     |   |                               | 505-526.5<br>MARITIME<br>MOBILE 470 474<br>/AERONAUTICAL              | RADIONAVIGATION/<br>Aeronautical Mobile<br>Land Mobile   | 471             | 526.5-535<br>BROADCASTING<br>Mobile                            | 479 | 535-1 606.5<br>BROADCASTING |             | 1 606.5-1 800<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>RADIONAVIGATION |  |   | 482  |
|------|----------|--|-----|---|-------------------------------|---|--|-----------------|--|-----|-----------------------------|-------------|--|--|---|--|
|      | REGION 2 | 415-495<br>MARITIME MOBILE 470<br>Aeronautical Radionavigation       |     | 469 469A 471 472A   | MOBILE (distress and calling) | 505-510<br>MARITIME MOBILE 470<br>471                                 | 510-525<br>MOBILE 474<br>AERONAUTICAL<br>RADIONAVIGATION |                 | 525-535<br>BROADCASTING 477<br>AERONAUTICAL<br>RADIONAVIGATION |     | 535-1 605<br>BROADCASTING   | 1 605-1 625 | BROADCASTING 480   | 1 625-1 705<br>BROADCASTING 480<br>/FIXED/<br>/MOBILE/ | nadiolocation<br>480A   | 1 705-1 800<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>AERONAUTICAL<br>RADIONAVIGATION |
| - 11 | REGION 1 | 415-435<br>AERONAUTICAL<br>RADIONAVIGATION<br>//MARITIME MOBILE/ 470 | 465 | 435-495 MARITIME MOBILE 470 Aeronautical Radionavigation 465 471 472A | 495-505                       | 505-526.5<br>MARITIME MOBILE 470<br>/AERONAUTICAL<br>RADIONAVIGATION/ |  | 465 471 474 476 | 526.5-1 606.5<br>BROADCASTING                                  |     | 478                         |             | 1 606.5-1 625 MARITIME MOBILE 480A /FIXED/ /LAND MOBILE/ 483 484     | 1 625-1 635<br>RADIOLOCATION 487<br>485 486            | 1 635-1 800<br>MARITIME MOBILE 480A<br>/FIXED/<br>/LAND MOBILE/ | 483 484 488  |

|             | 471 472A   |
|-------------|--|
| 495-505     | MOBILE (distress and calling)                                    |
|             | 41/2   |
| 505-510     | MARITIME MOBILE 470  |
|             | 4/1  |
| 510-525     | MOBILE<br>AERONAUTICAL RADIONAVIGATION                           |
| 525-535     | BROADCASTING 477 AERONAUTICAL RADIONAVIGATION                    |
| 535-1 605   | BROADCASTING   |
| 1 605-1 705 | BROADCASTING 480   |
|             |  |
|             |  |
|             | 480A   |
| 1 705-1 800 | AERONAUTICAL RADIONAVIGATION<br>FIXED<br>MOBILE<br>RADIOLOCATION |

MOBILE (distress and calling)

2 173.5-2 190.5

MARITIME MOBILE

2 190.5-2 194

FIXED

2 194-2 300

MARITIME MOBILE

2 170-2 173.5

MARITIME MOBILE 497 C3

2 065-2 107

2 107-2 170

FIXED

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| REGION 1   | REGION 2  | REGION 3                                |
|--|---|---|
| 1 800-1 810<br>RADIOLOCATION 487<br>485 486  | 1 800-1 850<br>AMATEUR  | 1 800-2 000 AMATEUR FIXED MOBILE except |
| 1 810-1 850<br>AMATEUR<br>490 491 492 493  |   | RADIONAVIGATION Radiolocation           |
| 1 850-2 000<br>FIXED<br>MOBILE except<br>aeronautical mobile   | 1 850-2 000<br>AMATEUR<br>FIXED<br>MOBILE except<br>aeronautical mobile<br>RADIOLOCATION<br>RADIONAVIGATION |   |
| 484 488 495  | 494   | 489                                     |
| 2 000-2 025<br>FIXED<br>MOBILE except<br>aeronautical mobile (R)                                       | 2 000-2 065<br>FIXED<br>MOBILE  |   |
|  |   |   |
| 2 025-2 045<br>FIXED<br>MOBILE except<br>aeronautical mobile (R)<br>Meteorological Aids 496<br>484 495 |   |   |
|  |   |   |
| 2 045-2 160<br>MARITIME MOBILE<br>/FIXED/<br>ILAND MOBILE/<br>483 484                                  | 2 065-2 107<br>MARITIME MOBILE 497<br>498   |   |
| 2 160-2 170<br>RADIOLOCATION 487   | 2 107-2 170<br>FIXED<br>MOBILE  |   |
| 485 486 499  |   |   |
| 2 170-2 173.5  | MARITIME MOBILE   |   |
| 2 173.5-2 190.5  | MOBILE (distress and calling)   |   |
|  | 500 500A 500B 501   |   |
| 2 190.5-2 194  | MARITIME MOBILE   |   |
| 2 194-2 300<br>FIXED<br>MOBILE except  | 2 194-2 300<br>FIXED<br>MOBILE  |   |
| aeronautical mobile (R)  |   |   |
| 484 495 502  | 502   |   |

1 800-1 850

AMATEUR RADIOLOCATION RADIONAVIGATION

1 850-2 000

FIXED

2 000-2 065

| KHZ<br>CANADIAN ALLOCATION TABLE |
|----------------------------------|
|----------------------------------|

CANADIAN ALLOCATION TABLE

| BEGION 1   | REGION 2 REGION 3  |
|--|--|
| 2 300-2 498<br>FIXED<br>MOBILE except<br>aeronautical mobile (R)<br>BROADCASTING 503 | 2 300-2 495<br>FIXED<br>MOBILE<br>BROADCASTING 503                 |
| 495  | 2 495-2 501<br>STANDARD FREQUENCY AND TIME SIGNAL<br>(2 500 kHz)   |
| 2 498-2 501<br>STANDARD FREQUENCY<br>AND TIME SIGNAL<br>(2 500 kHz)                  |  |
| 2 501-2 502  | STANDARD FREQUENCY AND TIME SIGNAL Space Research                  |
| 2 502-2 625<br>FIXED<br>MOBILE except<br>aeronautical mobile (R)                     | 2 502-2 505<br>STANDARD FREQUENCY AND TIME SIGNAL                  |
| 484 495 504  | 2 505-2 850<br>FIXED<br>MOBILE                                     |
| 2 625-2 650<br>MARITIME MOBILE<br>MARITIME<br>RADIONAVIGATION                        |  |
| 484  |  |
| 2 650-2 850<br>FIXED<br>MOBILE except<br>aeronautical mobile (R)                     |  |
| 484 495  |  |
| 2 850-3 025  | AERONAUTICAL MOBILE (R)  |
|  | 501 505  |
| 3 025-3 155  | AERONAUTICAL MOBILE (OR)   |
| 3 155-3 200  | FIXED MOBILE except aeroautical mobile (R)                         |
|  | 506 507  |
| 3 200-3 230  | FIXED<br>MOBILE except aeronautical mobile (R)<br>BROADCASTING 503 |
|  | 506  |

| 2 300-2 495 | FIXED   |
|-------------|---|
| 2 495-2 501 | STANDARD FREQUENCY AND TIME SIGNAL (2 500 KHz)    |
| 2 501-2 502 | STANDARD FREQUENCY AND TIME SIGNAL Space Research |
| 2 502-2 505 | STANDARD FREQUENCY AND TIME SIGNAL                |
| 2 505-2 850 | FIXED MOBILE                                      |
| 2 850-3 025 | AERONAUTICAL MOBILE (R)                           |
|             | 501 505   |
| 3 025-3 155 | AERONAUTICAL MOBILE (OR)                          |
| 3 155 3 230 | FIXED<br>MOBILE except aeronautical mobile (R)    |
|             |   |
|             | 909   |

| SERVICES      |
|---------------|
| ALLOCATION TO |
| DE.           |

| ## WOBILE except aeronautical mobile (R)  3 400-3 500  AERONAUTICAL MOBILE (R)  ## MOBILE except aeronautical mobile (R)  ## AMATEUR 510  ## A | 230-3 400  | FIXED FIXED  | REGION 3   |
|--|--|--|--|
| AERONAUTICAL MOBILE (R)  Soo 511 3 750-4 000 AMATEUR 510 AMATEUR 510 HXED MOBILE except aeronautical mobile (R) FIXED MARITIME MOBILE 517 516 MARITIME MOBILE 500A 50 518 519 AERONAUTICAL MOBILE (R) AERONAUTICAL MOBILE (R)  |  | MUBILE except aeronautical range BROADCASTING 503 506 508                    | Hobbie<br>H  |
| 3 500-3 750  | 3 500  | AERONAUTICAL MOBILE (R)  |  |
| MOBILE except aeronautical mobile (R)  EXED MARITIME MOBILE 517  516  MARITIME MOBILE 500A 50  518 519  AERONAUTICAL MOBILE (R)  AERONAUTICAL MOBILE (OR)  | -3 800<br>EUR 510<br>E except<br>nautical mobile | 3 500-3 750<br>AMATEUR 510<br>509 511<br>3 750-4 000<br>AMATEUR 510<br>FIXED | 3 9C   |
| FIXED MARITIME MOBILE 517 516 MARITIME MOBILE 500A 50 518 519 ronautical mobile (R) AERONAUTICAL MOBILE (OR)   | -3 900<br>NAUTICAL<br>ILE (OR)<br>MOBILE         | MOBILE except<br>aeronautical mobile (R)                                     |  |
| 3 950-4 000   FIXED   BROADCASTING   | )-3 950<br>NAUTICAL<br>3ILE (OR)                 |  | 3 900-3 950<br>AERONAUTICAL MOBILE<br>BROADCASTING           |
| 4 063  HIXED  MARITIME MOBILE 517  516  4 438  MARITIME MOBILE 500A 500B 520 520A  518 519  E except aeronautical mobile (R)  A 700  AERONAUTICAL MOBILE (R)  AERONAUTICAL MOBILE (R)  | 0-4 000<br>DCASTING                              |  | 3 950-4 000<br>FIXED<br>BROADCASTING                         |
| ### 438 MARITIME MOBILE 500A 500B 520 520A 518 519 ####################################  | -4 063   | 512 514 515<br>IME MOBILE  | 516  |
| # 438 MARITIME MOBILE 500A 500B 520 520A 500B 520 520A 518 519 # 650 FIXED FIXED FIXED FIXED FIXED A 900BLE except aeronautical mobile (R) A 500 AERONAUTICAL MOBILE (R)   |  | 516  |  |
| E except aeronautical mobile (R)  A 700  AERONAUTICAL MOBILE (R)  AERONAUTICAL MOBILE (R)  AERONAUTICAL MOBILE (OR)  |  | 500A   | 520 520A   |
| 700  | 3-4 650<br>)<br>ILE except aeronautic            | al mobile (R)  | 4 438-4 650<br>FIXED<br>MOBILE except<br>aeronautical mobile |
| 750  |  |  |  |
|  | 0-4 750  | AERONAUTICAL MOBILE (OF  | ()   |

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|             | FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation 508 |
|-------------|---|
|             | 506   |
| 3 400-3 500 | AERONAUTICAL MOBILE (R)   |
| 3 500-4 000 | AMATEUR 510   |
|             |   |
|             |   |
|             |   |
|             | 514   |
| 4 000-4 063 | FIXED<br>MARITIME MOBILE 517                                    |
| 4 063-4 438 | MARITIME MOBILE 500A 500B 520 520A 520B 519                     |
| 4 438-4 650 | FIXED<br>MOBILE except aeronautical mobile (R)                  |
| 4 650.4 700 | AERONAUTICAL MOBILE (R)   |
| 4 700-4 750 | AERONAUTICAL MOBILE (OR)  |
|             | CS  |

CANADIAN ALLOCATION TABLE

| 8 2                | 203  |  |  |  |                           |   |   |  |                         |            |
|--------------------|--|--|--|--|---------------------------|---|---|--|-------------------------|------------|
| REGION A 750 A 950 | 4 750-4 850<br>FIXED<br>BROADCASTING 503<br>Land Mobile                                |  | D TIME SIGNAL                                  | D TIME SIGNAL  |                           | obile                                       | mobile                                  | 5 450-5 480<br>FIXED<br>AERONAUTICAL<br>MOBILE (OR)<br>LAND MOBILE |                         |            |
| REGION 2           | 4 750-4 850 FIXED MOBILE except aeronautical mobile (R) BROADCASTING 503               | FIXED<br>LAND MOBILE<br>BROADCASTING 503 | STANDARD FREQUENCY AND TIME SIGNAL (5 000 kHz) | STANDARD FREQUENCY AND TIME SIGNAL<br>Space Research | FIXED<br>BROADCASTING 503 | FIXED Mobile except aeronautical mobile 521 | FIXED MOBILE except aeronautical mobile | 5 450-5 480<br>AERONAUTICAL<br>MOBILE (R)                          | AERONAUTICAL MOBILE (R) | 707<br>707 |
| A ZEO A GEO        | 4 750-4 850<br>FIXED<br>AERONAUTICAL<br>MOBILE (OR)<br>LAND MOBILE<br>BROADCASTING 503 | 4 860-4 995                              | 4 995-5 003                                    | 5 003-5 005  | 5 005-5 060               | 5 060-5 250                                 | 5 250-5 450                             | 5 450-5 480<br>FIXED<br>AERONAUTICAL<br>MOBILE (OR)<br>LAND MOBILE | 5 480-5 680             |            |

| 4 750-4 850 | FIXED MOBILE except aeronautical mobile (R)       |
|-------------|---|
| 4 850-4 995 | FIXED<br>LAND MOBILE                              |
| 4 995-5 003 | STANDARD FREQUENCY AND TIME SIGNAL (5 000 kHz)    |
| 5 003-5 005 | STANDARD FREQUENCY AND TIME SIGNAL Space Research |
| 2 005-5 060 | FIXED   |
| 5 060-5 250 | FIXED<br>Mobile except aeronautical mobile        |
| 5 250-5 450 | FIXED MOBILE except aeronautical mobile           |
| 5 450-5 480 | AERONAUTICAL MOBILE (R)                           |
| 5 480-5 680 | AERONAUTICAL MOBILE (R)                           |
|             | 501 505   |

FIXED Land Mobile

7 350-8 100

529

## ITU ALLOCATION TO SERVICES

MARITIME MOBILE 500A 500B 520 520B

BROADCASTING

5 950-6 200

6 200-6 525

AERONAUTICAL MOBILE (OR)

6 685-6 765

FIXED Land Mobile

6 765-7 000

AERONAUTICAL MOBILE (R)

6 525-6 685

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FIXED MOBILE except aeronautical mobile (R)

AERONAUTICAL MOBILE (OR)

5 680-5 730

501 505 C5

5 730-5 900

BROADCASTING 521A 521B FIXED MOBILE except aeronautical mobile (R)

5 900-5 950

| 30<br>AMATEUR 510<br>AMATEUR-SATELLIT | OO AMATEUR 510 |
|---------------------------------------|----------------|
| 7 000-7 100                           | 7 100-7 300    |

| 521B         |       |             |         |
|--------------|-------|-------------|---------|
| 521A         |       |             |         |
| BROADCASTING | FIXED | Land Mobile | 528A C9 |

7 300-7 350

|       | FIXED | Land Mobile |  |
|-------|-------|-------------|--|
| 100   |       |             |  |
| 350-8 |       |             |  |
| 7     |       |             |  |

CANADIAN ALLOCATION TABLE

1 2

| 20000         | C NOLOGIA   | REGION 3     |
|---------------|---|--------------|
| REGION 1      |   |              |
| 10 150-11 175 | FIXED<br>Mobile except aeronautical mobile (R)        | le (R)       |
| 11 175-11 275 | AERONAUTICAL MOBILE (OR)                              |              |
| 11 275-11 400 | AERONAUTICAL MOBILE (R)                               |              |
| 11 400-11 600 | FIXED   |              |
| 11 600-11 650 | BROADCASTING 521A 521B                                |              |
| 11 650-12 050 | BROADCASTING<br>530 531                               |              |
| 12 050-12 100 | BROADCASTING 521A 521B                                |              |
| 12 100-12 230 | FIXED   |              |
| 12 230-13 200 | MARITIME MOBILE 500A 500B                             | )B 520B 529A |
| 13 200-13 260 | AERONAUTICAL MOBILE (OR)                              |              |
| 13 260-13 360 | AERONAUTICAL MOBILE (R)                               |              |
| 13 360-13 410 | FIXED<br>RADIO ASTRONOMY<br>533                       |              |
| 13 410-13 570 | FIXED<br>Mobile except aeronautical mobile (R)<br>534 | oile (R)     |

| TABLE   |  |
|---------|--|
| OCATION |  |
| AN ALLO |  |
| CANADI  |  |

ITU ALLOCATION TO SERVICES

| 15 010-15 100 AERONAUTICAL MOBILE (OR) 15 100-15 600 BROADCASTING 531 15 600-15 800 BROADCASTING 521A 521B |
|--|
| BROADCASTING<br>531<br>BROADCASTING 521A   |
|  |

| 13 570-13 600 |  |
|---------------|--|
|               | BROADCASTING 521A 521B<br>FIXED<br>MOBILE except aeronautical mobile ,R) |
|               | 534A C9  |
| 13 600-13 800 | BROADCASTING   |
|               | 531  |
| 13 800-13 870 | BROADCASTING 521A 521B FIXED Mobile except aeronautical mobile (R)       |
| 13 870-14 000 | an an  |
| 14 000-14 250 | AMATEUR 510 AMATEUR-SATELLITE  |
| 14 250-14 350 | AMATEUR 510  |
| 14 350-14 990 | FIXED Mobile except aeronautical mobile (R)                              |
| 14 990-15 005 | STANDARD FREQUENCY AND TIME SIGNAL (15 000 kHz)                          |
| 15 005-15 010 | STANDARD FREQUENCY AND TIME SIGNAL Space Research                        |
| 15 010-15 100 | AERONAUTICAL MOBILE (OR)   |
| 5 100-15 600  | BROADCASTING<br>531  |
| 15 600-15 800 |  |
|               | 529B C9  |

# CANADIAN ALLOCATION TABLE

| REGION 1<br>800-16 360 | REGION 2 REGION 3                       |
|------------------------|---|
| 000                    | FIXED 536                               |
| 16 360-17 410          | MARITIME MOBILE 500A 500B 520B 529A     |
| 17 410-17 480          | FIXED                                   |
| 17 480-17 550          | BROADCASTING 521A 521B<br>529B          |
| 17 550-17 900          | BROADCASTING<br>531                     |
| 17 900-17 970          | AERONAUTICAL MOBILE (R)                 |
| 17 970-18 030          | AERONAUTICAL MOBILE (OR)                |
| 18 030-18 052          | FIXED                                   |
| 18 052-18 068          | FIXED<br>Space Research                 |
| 18 068-18 168          | AMATEUR 510<br>AMATEUR-SATELLITE        |
| 18 168-18 780          | FIXED Mobile except aeronautical mobile |
| 18 780-18 900          | MARITIME MOBILE                         |
| 18 900-19 020          | BROADCASTING 521A 521B                  |
|                        | 529B                                    |

| 15 800-16 360 | FIXED                                      |
|---------------|--|
|               | 536  |
| 16 360-17 410 | MARITIME MOBILE 500A 500B 520B 529A        |
| 17 410-17 480 | FIXED                                      |
| 17 480-17 550 | BROADCASTING 521A 521B<br>FIXED<br>529B C9 |
| 17 550-17 900 | BROADCASTING<br>531                        |
| 17 900-17 970 | AERONAUTICAL MOBILE (R)                    |
| 17 970-18 030 | AERONAUTICAL MOBILE (OR)<br>C5             |
| 18 030-18 052 | FIXED                                      |
| 18 052-18 068 | FIXED<br>Space Research                    |
| 18 068-18 168 | AMATEUR 510<br>AMATEUR-SATELLITE           |
| 18 168-18 780 | FIXED                                      |
| 18 780-18 900 | MARITIME MOBILE                            |
| 18 900-19 020 | BROADCASTING 521A 521B<br>FIXED<br>529B C9 |

| FIXED         | MARITIME MOBILE 520B | FIXED         | STANDARD FREQUENCY AND TIME SIGNAL Space Research 501 | STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz) 501 | FIXED<br>Mobile | AMATEUR 510<br>AMATEUR-SATELLITE | BROADCASTING 631 | FIXED         | AERONAUTICAL FIXED | AERONAUTICAL MOBILE (R) | MARITIME MOBILE 520B | FIXED         |
|---------------|----------------------|---------------|---|---|-----------------|----------------------------------|------------------|---------------|--------------------|-------------------------|----------------------|---------------|
| 19 020-19 680 | 19 680-19 800        | 19 800-19 990 | 19 990-19 995   | 19 995-20 010                                       | 20 010-21 000   | 21 000-21 450                    | 21 450-21 850    | 21 850-21 870 | 21 870-21 924      | 21 924-22 000           | 22 000-22 855        | 22 855-23 000 |

## KHZ

| REGION 2 REGION 3 | FIXED Mobile except aeronautical mobile (R) 540 | AERONAUTICAL FIXED<br>AERONAUTICAL MOBILE (OR) | FIXED MOBILE except aeronautical mobile 541 | FIXED<br>LAND MOBILE<br>542 | AMATEUR 510 AMATEUR-SATELLITE 542 | STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz) | STANDARD FREQUENCY AND TIME SIGNAL Space Research | FIXED MOBILE except aeronautical mobile | MARITIME MOBILE | FIXED<br>MOBILE except aeronautical mobile | RADIO ASTRONOMY 545 | BROADCASTING  |
|-------------------|---|--|---|-----------------------------|-----------------------------------|---|---|---|-----------------|--|---------------------|---------------|
| REGION 1          | 23 000-23 200                                   | 23 200-23 350                                  | 23 350-24 000                               | 24 000-24 890               | 24 890-24 990                     | 24 990-25 005                                   | 25 005-25 010                                     | 25 010-25 070                           | 25 070-25 210   | 25 210-25 550                              | 25 550-25 670       | 25 670-26 100 |

| 23 000-23 200 | FIXED<br>Mobile except aeronautical mobile (R)    |
|---------------|---|
| 23 200-23 350 | AERONAUTICAL FIXED AERONAUTICAL MOBILE (OR) C5    |
| 23 350-24 000 | FIXED<br>MOBILE except aeronautical mobile 541    |
| 24 000-24 890 | FIXED<br>LAND MOBILE                              |
| 24 890-24 990 | AMATEUR 510<br>AMATEUR-SATELLITE<br>543           |
| 24 990-25 005 | STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)   |
| 25 005-25 010 | STANDARD FREQUENCY AND TIME SIGNAL Space Research |
| 25 010-25 070 | FIXED<br>MOBILE except aeronautical mobile        |
| 25 070-25 210 | MARITIME MOBILE<br>544                            |
| 25 210-25 550 | FIXED<br>MOBILE except aeronautical mobile        |
| 25 550-25 670 | RADIO ASTRONOMY<br>545                            |
| 25 670-26 100 | BROADCASTING                                      |

| REGION 3 |                      | iobii e                           |  |
|----------|----------------------|-----------------------------------|--|
| REGION 2 | MARITIME MOBILE 520B | MOBILE except aeronautical mobile |  |
| REGION 1 | 26 100-26 175        | 26 175-27 500                     |  |

| MARITIME MOBILE 520B | FIXED MOBILE except aeronautical mobile | 546 |
|----------------------|---|-----|
| 26 100-26 175        | 26 175-27 500                           |     |

ITU ALLOCATION TO SERVICES

| 27.5-28      | MOBILE<br>Fixed                           |
|--------------|---|
| 28-29.7      | AMATEUR<br>AMATEUR-SATELLITE              |
| 29.7-30.005  | MOBILE<br>Fixed                           |
| 30.005-30.01 | MOBILE<br>SPACE RESEARCH<br>Fixed         |
| 30.01-37.5   | MOBILE<br>Fixed                           |
| 37.5-38.25   | MOBILE<br>Fixed<br>Radio Astronomy<br>547 |
| 38.25-39.986 | MOBILE<br>Fixed                           |
| 39.986-40.02 | MOBILE<br>Fixed<br>Space Research         |
| 40.02-40.98  | MOBILE<br>Fixed<br>548                    |
| 40.98-41.015 | MOBILE<br>Fixed<br>Space Research         |
|              |   |

| REGION 1 | 41.015-44       |         | 44-47 |     | 47-68<br>BROADCASTING                    |                  |                 |  | 553 554 555 559 561 | 68-74.8<br>FIXED<br>MOBILE except<br>aeronautical mobile |     |                          |                            |     |                              | 564 565 567<br>568 571 572 | 74.8-75.2                    |          |
|----------|-----------------|---------|-------|-----|--|------------------|-----------------|--|---------------------|--|-----|--------------------------|----------------------------|-----|------------------------------|----------------------------|------------------------------|----------|
| REGION 2 | FIXED<br>MOBILE | 549 550 | FIXED | 552 | 47-50<br>FIXED<br>MOBILE                 | 50-54<br>AMATEUR | 556 557 558 560 | 54-68<br>BROADCASTING<br>Fixed<br>Mobile | 562                 | 68-72<br>BROADCASTING<br>Fixed<br>Mobile                 | 563 | 72-73<br>FIXED<br>MOBILE | 73-74.6<br>RADIO ASTRONOMY | 570 | 74.6-74.8<br>FIXED<br>MOBILE | 572                        | AERONAUTICAL RADIONAVIGATION | 572 572A |
| REGION 3 |                 |         |       |     | 47-50<br>FIXED<br>MOBILE<br>BROADCASTING |                  |                 | 54-68<br>FIXED<br>MOBILE<br>BROADCASTING |                     | 68-74.8<br>FIXED<br>MOBILE                               |     |                          |                            |     |                              | 566 568 571 572            | /IGATION                     |          |

| MHz | CANADIAN ALLOCATION TABLE |
|-----|---------------------------|
|     |                           |

|           | MOBILE FIXED MOBILE FIXED MOBILE RADIO ASTRONOMY |
|-----------|--|
| 74.6-74.8 | FIXED<br>MOBILE<br>572                           |
| 74.8-75.2 | AERONAUTICAL RADIONAVIGATION<br>572              |

# MHZ CANADIAN ALLOCATION TABLE

| REGION 1   | REGION 2  | REGION 3  |
|--|---|---|
| 75.2-87.5<br>FIXED<br>MOBILE except<br>aeronautical mobile | 75.2-75.4<br>FIXED<br>MOBILE<br>571 572   |   |
|  | 75.4-76<br>FIXED<br>MOBILE  | 75.4-87<br>FIXED<br>MOBILE  |
|  | 76-88<br>BROADCASTING<br>Fixed<br>Mobile  | 573 574 577 579   |
| 565 571 572 575 578  | 576   | 87-100  |
| 87.5-100<br>BROADCASTING                                   | 88-100<br>BROADCASTING  | FIXED<br>MOBILE<br>BROADCASTING   |
| 581  |   | 580   |
| 100-108  | BROADCASTING  |   |
|  | 584 585 586 587 588 58  | 589   |
| 108-117.975  | AERONAUTICAL RADIONAVIGATION  | GATION  |
|  | 590A  |   |
| 117.975-136  | AERONAUTICAL MOBILE (R)   |   |
|  | 501 591 592 593 594   |   |
| 136-137  | AERONAUTICAL MOBILE (R)<br>Fixed<br>Mobile except aeronautical mobile (R)   | obile (R)   |
|  | 591 594A 595  |   |
| 137-137.025  | SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 599B Fixed Mobile except aeronautical mobile (R) | o-Earth)<br>FE (space-to-Earth)<br>-Earth)<br>-Earth) 599B<br>obile (R) |
| 137 025-137 175  |   |   |
| 0.7.7.0.7.0.7.0.7.0.7.0.7.0.7.0.7.0.7.0                    | SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) Mobile-Satellite (space-to-Earth) 599B | o-Earth)<br>FE (space-to-Earth)<br>Earth)<br>obile (R)<br>th) 5998      |
|  | 596 597 598 599 599A  |   |

| 75.2-76         |   |
|-----------------|---|
|                 | FIXED<br>MOBILE   |
|                 | 672   |
| 76-108          | BROADCASTING  |
|                 |   |
| 108-117.975     | AERONAUTICAL RADIONAVIGATION  |
| 117.975-137     | AERONAUTICAL MOBILE (R)   |
|                 | ,<br>,<br>,   |
|                 | 501 592 593 595   |
| 137-137.025     | MOBILE-SATELLITE (space-to-Earth) 599B METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE OPERATION (space-to-Earth) Space Research (space-to-Earth) |
|                 | 599A  |
| 137.025 137.175 | METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE OPERATION (space-to-Earth) Mobile Satellite (space-to-Earth) Space Research (space-to-Earth)      |
|                 | 599A  |

| REGION 3 | ON (space-to-Earth) AL-SATELLITE (space-to-Earth) CH (space-to-Earth) ITE (space-to-Earth) sronautical mobile (R)   | SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Mobile-Satellite (space-to-Earth) 599B Fixed Mobile except aeronautical mobile (R) | 599A            | 138-143.6<br>FIXED<br>MOBILE<br>Space Research<br>(space-to-Earth)                    | 599 603         | 143.6-143.65<br>FIXED<br>MOBILE<br>SPACE RESEARCH<br>(space-to-Earth)                     | 599 603     | 143.65-144<br>FIXED<br>MOBILE<br>Space Research<br>(space-to-Earth)                    | 599 603         |                                  |         | 146-148<br>AMATEUR<br>FIXED<br>MOBILE                        | 607 | 86  |               |
|----------|---|---|-----------------|---|-----------------|---|-------------|--|-----------------|----------------------------------|---------|--|-----|---|---------------|
| REGION 2 | SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 696 597 598 599 599A | SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (spac<br>SPACE RESEARCH (space-to-Earth) Mobile-Satellite (space-to-Earth) 599 Fixed Mobile except aeronautical mobile (R)          | 596 597 598 599 | 138-143.6<br>FIXED<br>MOBILE<br>/RADIOLOCATION/<br>Space Research<br>(space-to-Earth) |                 | 143.6-143.65<br>FIXED<br>MOBILE<br>SPACE RESEARCH<br>(space-to-Earth)<br>//RADIOLOCATION/ |             | 143.65-144<br>FIXED<br>MOBILE<br>/RADIOLOCATION/<br>Space Research<br>(space-to-Earth) |                 | AMATEUR 510<br>AMATEUR-SATELLITE | 909 909 | 146-148<br>AMA I EUR   | 607 | 148-149.9<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE<br>(Earth-to-space) 599B                                   | 608 608A 608C |
| REGION 1 | 137.175-137.825   | 137.825-138   |                 | 138-143.6<br>AERONAUTICAL<br>MOBILE (OR)  | 600 601 602 604 | 143.6-143.65 AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth)                     | 601 602 604 | 143.65-144<br>AERONAUTICAL<br>MOBILE (OR)  | 600 601 602 604 | 144-146                          |         | 146-148<br>FIXED<br>MOBILE except<br>aeronautical mobile (R) |     | 148-149.9<br>FIXED<br>MOBILE except<br>aeronautical mobile (R)<br>MOBILE-SATELLITE<br>(Earth-to-space) 599B | 608 608A 608C |

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| REGION 3 | ELLITE<br>E (Earth-to-space) 599B 609B                              |               |  |   |   | ess and calling)                       |         |                                  |                 | 174-223<br>FIXED<br>MOBILE<br>BROADCASTING        |  | 223-230<br>HXED<br>MOBILE<br>BROADCASTING                     | AERONAUTICAL<br>RADIONAVIGATION<br>Radiolocation | 636 637                    | 230-235<br>HXED<br>MOBILE<br>AERONAUTICAL<br>RADIONAVIGATION |
|----------|---|---------------|--|---|---|--|---------|----------------------------------|-----------------|---|--|---|--|----------------------------|--|
| REGION 2 | RADIONAVIGATION-SATELLITE<br>LAND MOBILE-SATELLITE (Earth-to-space) | 608B 609 609A | 150.05-156.7625<br>FIXED<br>MOBILE                                     |   | 611 613 613A  | MARITIME MOBILE (distress and calling) | 501 613 | 156.8375-174<br>FIXED<br>MOBILE  | 613 616 617 618 | 174-216<br>BROADCASTING<br>Fixed<br>Mobile<br>620 | 216-220<br>FIXED<br>MARITIME MOBILE<br>Radiolocation 627<br>627A | 220-225<br>AMATEUR<br>FIXED<br>MOBILE<br>Radiolocation 627    |  | 225-235                    | MOBILE   |
| REGION 1 | 149.9-150.05  |               | 150.05-153 FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 610 | 153-154<br>FIXED<br>MOBILE except<br>aeronautical mobile (R)<br>Meteorological Aids | 154-156.7625<br>FIXED<br>MOBILE except<br>aeronautical mobile (R)<br>613 613A | 156.7625-156.8375                      |         | 156.8375-174 FIXED MOBILE except | 613 613B 615    | 174-223<br>BROADCASTING                           |  | 621 623 628 629<br>223-230<br>BROADCASTING<br>Fixed<br>Mobile | 0  | 622 628 629<br>631 632 635 | 230-235<br>FIXED<br>MOBILE                                   |

| MOBILE-SATELLITE (Earth-to-space) 599B 609B RADIONAVIGATION-SATELLITE 608B 609 609A | MOBILE<br>Fixed | MARITIME MOBILE (distress and calling) | - T          | BROADCASTING | FIXED<br>LAND MOBILE 627A<br>MARITIME MOBILE | AMATEUR | FIXED<br>MOBILE<br>C5 |
|---|-----------------|--|--------------|--------------|--|---------|-----------------------|
| 149.9-150.05  | 150.05-156.7625 | 156.7625-156.8375                      | 156.8375-174 | 174-216      | 216-220                                      | 220-225 | 225-235               |

| ate   |  | 645A | 5                            | L                                  |  | ate   |  | ш   | 0   | 2               | FIXED | RE                |
|---|--|------|------------------------------|------------------------------------|--|---|--|---|---|-----------------|-------|-------------------|
| FIXED<br>MOBILE<br>Mobile-Satellite (space-to-Earth) 641 641A |  |      | AERONAUTICAL RADIONAVIGATION | FIXED<br>MOBILE<br>RADIO ASTRONOMY |  | FIXED<br>MOBILE<br>Mobile-Satellite (Earth-to-space) 641 641A |  | SPACE OPERATION (space-to-Earth)<br>FIXED<br>MOBILE | MOBILE<br>Space Operation (space-to-Earth)<br>641 643 | 635 640 641 642 |       | REGION 2 REGION 3 |

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| MOBILE  | 501 592 641 642 C5 C8 | FIXED<br>MOBILE | 641 C5 C8 | FIXED<br>MOBILE<br>Mobile-Satellite (Earth-to-space) 641 641A | C5 C8 | FIXED<br>MOBILE |  | 641 C5 C8 | AERONAUTICAL RADIONAVIGATION | 645 | FIXED MOBILE | 641 C5 | FIXED MOBILE Mobile-Satellite (space-to-Earth) 641 641A | C5 | FIXED     | 641 C5 |
|---------|-----------------------|-----------------|-----------|---|-------|-----------------|--|-----------|------------------------------|-----|--------------|--------|---|----|-----------|--------|
| 235-273 |                       | 273-312         |           | 312-315   | ,     | 315-328.6       |  |           | 328.6-335.4                  |     | 335.4-387    |        | 387-390   |    | 390-399.9 |        |

CANADIAN ALLOCATION TABLE

399.9-400.05

400.05-400.15

400.15-401

401-402

ITU ALLOCATION TO SERVICES

|  |               |   | 0.1401010  |
|--|---------------|---|--|
|  | 399.9-400.05  | REGION Z  | AEGION S   |
| RADIONAVIGATION-SATELLITE  |               | RADIONAVIGATION-SATELLITE   | щ  |
| 609 645B C19   |               | 609 645B  |  |
| STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz)   | 400.05-400.15 | STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE<br>(400.1 MHz)   | TIME SIGNAL-SATELLITE                                      |
| 646  |               | 646 647   |  |
| METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 599B SPACE RESEARCH (space-to-Earth) 647A Space Operation (space-to-Earth) | 400.15-401    | METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) 647A MOBILE-SATELLITE (space-to-Earth) 599B Space Operation (space-to-Earth)          | E (space-to-Earth)<br>Earth) 647A<br>Earth) 599B<br>Earth) |
| 647B   |               | 647 647B  |  |
| METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) Earth Exploration-Satellite (Earth-to-space) Fixed Mobile except aeronautical mobile                                  | 401-402       | METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) Earth Exploration-Satellite (Earth-to-space) Fixed Meteorological-Satellite (Earth-to-space) Mobile except aeronautical mobile | Earth)<br>(h-to-space)<br>to-space)<br>bile                |
| METEOROLOGICAL AIDS<br>Earth Exploration-Satellite (Earth-to-space)<br>Fixed<br>Mobile except aeronautical mobile  | 402-403       | METEOROLOGICAL AIDS Earth Exploration-Satellite (Earth-to-space) Fixed Meteorological-Satellite (Earth-to-space) Mobile except aeronautical mobile                                  | th-to-space)<br>to-space)<br>bile                          |
| METEOROLOGICAL AIDS<br>Fixed<br>Mobile except aeronautical mobile  | 403.406       | METEOROLOGICAL AIDS<br>Fixed<br>Mobile except aeronautical mobile<br>648  | bile   |
| 0+0  |               |   |  |
| MOBILE-SATELLITE (Earth-to-space)  | 406-406.1     | MOBILE-SATELLITE (Earth-to-space)   | space)   |
| 649 649A   |               | 649 649A  |  |
| MOBILE except aeronautical mobile<br>RADIO ASTRONOMY<br>Fixed  | 406.1-410     | FIXED<br>MOBILE except aeronautical mobile<br>RADIO ASTRONOMY   | obile  |
| 648 650  |               | 648 650   |  |

402-403

406-406.1

403-406

406.1-410

| REGION 1  | REGION 2 REGION 3  |
|---|--|
| 410-420   | FIXED MOBILE except aeronautical mobile Space Research (space-to-space) 651A |
| 420-430   | FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation                  |
|   | 651 652 653  |
| 430-440<br>AMATEUR<br>RADIOLOCATION                   | 430-440<br>RADIOLOCATION<br>Amateur  |
| 653 654 655 656<br>657 658 659 661<br>662 663 664 665 | 653 658 659 660 660A 663 664   |
| 440-450   | FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation                  |
|   | 651 652 653 666 667 668  |
| 450-460   | FIXED  |
|   | 653 668 669 670  |
| 460-470   | FIXED<br>MOBILE<br>Meteorological-Satellite (space-to-Earth)                 |
|   | 669 670 671 672  |

| MOBILE except aeronautical mobile<br>Fixed<br>Space Research (space-to-space) 651A | FIXED Mobile except aeronautical mobile Space Research (space-to-space) 651A | MOBILE except aeronautical mobile<br>Fixed<br>Space Research (space-to-space) 651A | FIXED<br>Mobile except aeronautical mobile<br>Space Research (space-to-space) 651A | MOBILE except aeronautical mobile Fixed C10 | RADIOLOCATION 667 Amateur 666 | MOBILE 669 670<br>Fixed |
|--|--|--|--|---|-------------------------------|-------------------------|
| 410-414  | 414-415  | 415-419  | 419-420  | 420-430                                     | 430-450                       | 450-470                 |

MHz

ITU ALLOCATION TO SERVICES

| REGION 3 | 585<br>D<br>IILE<br>ADCASTING | 585-610<br>FIXED<br>MOBILE<br>BROADCASTING<br>RADIONAVIGATION |     | 688 689 690 | 610-890<br>FIXED<br>MOBILE<br>BROADCASTING   |   |  |                  |  |  | 677 688 689 690<br>691 693 701 |
|----------|-------------------------------|---|-----|-------------|--|---|--|------------------|--|--|--------------------------------|
| REGION 2 |                               | 512-608<br>BROADCASTING                                       | 678 |             | MADIO AS I RONOMY Mobile-Satellite except aeronautical mobile-satellite (Earth-to-space) |   | 614-806<br>BROADCASTING<br>Fixed<br>Mobile | 675 692 692A 693 | 806-890<br>FIXED<br>MOBILE<br>BROADCASTING |  | 692A 700 700A                  |
| REGION 1 |                               |   |     |             |  | 676 677A 683 684 685<br>686 686A 687 689 693<br>694 | 862<br>D<br>ADCASTING                      |                  | 694 695 695A 696 697<br>700B 702           | 862-890<br>FIXED<br>MOBILE except<br>aeronautical mobile<br>BROADCASTING 703 | 7008 704                       |

| 608-614 | BROADCASTING RADIO ASTRONOMY Mobile-Satellite except aeronautical mobile-satellite (Earth-to-space) BROADCASTING |
|---------|--|
| 068-800 | MOBILE   |
|         | 700 700A C11   |

### Canadian Table of Frequency Allocations

ITU ALLOCATION TO SERVICES

| REGION 3 | 890-942<br>FIXED<br>MOBILE<br>BROADCASTING<br>Radiolocation                                   |   |  | 902 |
|----------|---|---|--|-----|
| REGION 2 | 890-902<br>FIXED<br>MOBILE except<br>aeronautical mobile<br>Radiolocation<br>700A 704A 705    | 1 | 705 707 707A 928-942 FIXED MOBILE except aeronautical mobile Radiolocation | 105 |
| REGION 1 | 890-942<br>FIXED<br>MOBILE except<br>aeronautical mobile<br>BROADCASTING 703<br>Radiolocation |   |  | 704 |

| 890-902   | FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation C5A            |
|-----------|--|
|           |  |
|           | 700A 704A  |
| 902-928   | FIXED<br>RADIOLOCATION C5A<br>Amateur<br>Mobile except aeronautical mobile |
|           | 707  |
| 928-929   | FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation C5A            |
| 929-932   | MOBILE except aeronautical mobile<br>Fixed<br>Radiolocation C5A            |
| 932-932.5 | FIXED MOBILE except aeronautical mobile Radiolocation C5A                  |
| 932.5-935 | FIXED<br>Mobile except aeronautical mobile<br>Radiolocation C5A            |
| 935-941   | MOBILE except aeronautical mobile<br>Fixed<br>Radiolocation C5A            |
| 941-941.5 | FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation C5A            |
| 941.5-942 | FIXED<br>Mobile except aeronautical mobile<br>Radiolocation C5A            |
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| REGION 1   | REGION 2   | REGION 3                                   |
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| 942-960 FIXED MOBILE except aeronautical mobile BROADCASTING 703 | 942-960<br>FIXED<br>MOBILE                               | 942-960<br>FIXED<br>MOBILE<br>BROADCASTING |
| 704  |  | 701  |
| 960-1 215  | AERONAUTICAL RADIONAVIGATION                             | IGATION                                    |
| 1 215-1 240  | RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) | ITE (space-to-Earth) 710                   |
| 1 240-1 260  | OLOCATION CONAVIGATIC teur                               | ITE (space-to-Earth) 710                   |
| 1 260-1 300  | iloLOCATION tteur 711 712 712A                           | 714  |
| 1 300-1 350  | AERONAUTICAL RADIONAVIGATION Radiolocation               | IGATION 717                                |
|  | - 11   |  |

| 942-944     | FIXED<br>Mobile  |
|-------------|--|
| 944.952     | MOBILE   |
| 952-956     | FIXED<br>MOBILE  |
| 956-960     | FIXED<br>Mobile  |
| 960-1 215   | AERONAUTICAL RADIONAVIGATION                                 |
| 1 215-1 240 | RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) 713 |
| 1 240-1 300 | RADIOLOCATION<br>AERONAUTICAL RADIONAVIGATION<br>Amateur     |
| 1 300-1 350 | 664 713 AERONAUTICAL RADIONAVIGATION 717 Radiolocation 718   |
|             |  |

REGION 3

REGION 2

1 350-1 400 RADIOLOCATION SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile

EARTH EXPLORATION-SATELLITE (passive)
RADIO ASTRONOMY
SPACE RESEARCH (passive)

721 722

714 718 720

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| 1 350-1 370 | AERONAUTICAL RADIONAVIGATION 714 FIXED C5 MOBILE C5 RADIOLOCATION                      | 1350-1400<br>FIXED<br>MOBILE<br>RADIOLOCATION  |
|-------------|--|--|
|             | 718  |  |
| 1 370-1 400 | FIXED C5 MOBILE C5 RADIOLOCATION   |  |
|             | 718 720 C27  | 718 719 720  |
| 1 400-1 427 | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)         | 1 400-1 427  |
|             | 721 722  |  |
| 1 427-1 429 | FIXED<br>SPACE OPERATION (Earth-to-space)  | 1 427-1 429  |
|             | 722  |  |
| 1 429-1 452 | FIXED MOBILE C34   | 1 429-1 452<br>FIXED<br>MOBILE except<br>aeronautical mobile   |
|             | 722  | 722 723B   |
| 1 452-1 492 | BROADCASTING 722A<br>BROADCASTING-SATELLITE 722A<br>FIXED<br>Mobile<br>722 C28 C29 C30 | 1 452-1 492 FIXED MOBILE except aeronautical mobile BROADCASTING- SATELLITE 722A 72 BROADCASTING 722. 722B |
| 1 492-1 515 | FIXED MOBILE C 34  | 1 492-1 525<br>FIXED<br>MOBILE except<br>aeronautical mobile   |
| 1 515-1 525 | FIXED C31  |  |
|             | MOBILE-SATELLITE (space-to-Earth) C32  |  |
|             | 722 723C   | 722 723B   |

1 429-1 452 FIXED MOBILE 723

722

1 492-1 525 FIXED MOBILE 723

1 492-1 525
FIXED
MOBILE 723
MOBILE-SATELLITE
(space-to-Earth)

722 722C

722 722C 723C

1 452-1 492 FIXED MOBILE 723 BROADCASTING-SATELLITE 722A 722B BROADCASTING 722A 722B

## ITU ALLOCATION TO SERVICES

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AERONAUTICAL MOBILE-SATELLITE (R) (space-to-Earth)
Mobile-Satellite (space-to-Earth)

722 726A 726D 729 729A

MOBILE-SATELLITE (space-to-Earth)

1 544-1 545

722 726D 727A

1 545-1 555

722 726A 726C 726D

MOBILE-SATELLITE (space-to-Earth)

1 535-1 544

722 726A 726C 726D

MHz

ITU ALLOCATION TO SERVICES

CANADIAN ALLOCATION TABLE

MOBILE-SATELLITE (space-to-Earth)
Earth Exploration-Satellite
Space Operation (space-to-Earth)

1 525-1 530

|  | BEGION 2   | REGION 3   |
|--|--|--|
| 1 525-1 530 SPACE OPERATION (space-to-Earth) FIXED MARITIME MOBILE-SATELLITE (space-to-Earth) Land Mobile-Satellite (space-to-Earth) Land Mobile-Satellite Mobile except aeronautical mobile 724                         | 1 525-1 530 SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Earth Exploration- Sarellite Fixed Mobile 723   | 1 525-1 530 SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) FIXED Earth Exploration- Satellite Mobile 723 724 |
| 722 723B 725<br>726A 726D  | 722 723A 726A 726D   | 722 726A 726D  |
| 1 530-1 533 SPACE OPERATION (space-to-Earth) MARITIME MOBILE- SATELLITE (space-to-Earth) LAND MOBILE- SATELLITE (space-to-Earth) Earth Exploration- Satellite Fixed Mobile except aeronautical mobile 722 7238 726A 726D | 1 530-1 533 SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) LAND MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile 723 722 726A 726C 726D | to-Earth)<br>TE (space-to-Earth)<br>space-to-Earth)  |
| 1 533-1 535 SPACE OPERATION (space-to-Earth) MARITIME MOBILE- SATELLITE (space-to-Earth) Earth Exploration- Satellite Fixed Mobile except aeronautical mobile Land Mobile-Satellite (space-to-Earth) 726B                | 1 533-1 535 SPACE OPERATION (space-to-Earth) MARITIME MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile 723 Land Mobile-Satellite (space-to-Earth) 726B               | o-Earth)<br>TE (space-to-Earth)<br>-to-Earth) 726B   |
| 722 723B 726A 726D   | 722 726A 726C 726D   |  |
| 1 535-1 544  | ITIME MOBILE-SATEL<br>Mobile-Satellite (spac   | ITE (space-to-Earth)<br>-to-Earth) 726B  |
| 1 544-1 545  | MOBILE-SATELLITE (space-to-Earth)  | -to-Earth)   |
|  | 722 726D 727 727A  |  |
| 1 545-1 555  | AERONAUTICAL MOBILE-SATELLITE (R) (space-to-Earth)   | ATELLITE (R)   |
|  | 722 726A 726D 727 72   | 729 729A 730   |

MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite

722 726A 726D

1 530-1 535

### Canadian Table of Frequency Allocations

ITU ALLOCATION TO SERVICES

| REGION 1 | 1 555-1 559 LANI (sp)  | 1 559-1 610 AEI  | 722           | AERONAUTICAL RADIONAVIGATION RADIONAVIGATION RAMOBILE-SATELLITE S. (Earth-to-space) (Earth-to-more) (Inc.) | 722 727 730 731<br>731E 732 733 733A 72:<br>733B 733E 733F | AERONAUTICAL RADIONAVIGATION RADIOLE-SATELLITE RADIO ASTRONOMY MCBILE-SATELLITE SATELLITE SATELLITE RADIO ASTRONOMY MCC (FERTH-TO-SPACE) SATELLITE RADIO ASTRONOMY MCC (FERTH-TO-SPACE) SATELLITE RADIO ASTRONOMY MCC (FERTH-TO-SPACE) | 722 727 730 731 72:<br>731E 732 733 733A 733B 733B 733B 733F 734 | AERONAUTICAL RADIONAUTICAL RADIONAVIGATION RAGILE-SATELLITE RAGILE-SATELLITE SATELLITE | 722 727 730 731 722 |
|----------|--|------------------|---------------|---|--|--|--|--|---------------------|
| REGION 2 | LAND MOBILE-SATELLITE (space-to-Earth) 722 726A 726D 727 730 | DNAUTICAL RADION | 2 727 730 731 | 1 610-1 610.6 AERONAUTICAL RADIONAVIGATION RADIODETERMINATION- SATELLITE (Farth-to-space) MOBILE-SATELLITE (Earth-to-space)   | 722 731E 732 733<br>733A 733C 733D 733E                    | 1 610.6-1 613.8 AERONAUTICAL RADIONAVIGATION SATELLITE (Earth-to-space) (Earth-to-space) (Earth-to-space) KADIO ASTRONOMY  | 722 731E 732<br>733 733A 733C<br>733D 733E 734                   | 1 613.8-1 626.5 AERONAUTICAL RADIONAVIGATION RADIODETERMINATION- SATELLITE (Farth-to-space) MOBILE-SATELLITE (Farth-to-space) Mobile-Satellite (space-to-Earth)  | 722 731E 731F       |
| REGION 3 | 730A 730B 730C   | ce-to-É          |               | 1 610-1 610.6 AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (Earth-to-space) Radiodetermination- Satellite (Earth-to-space)   | 722 727 730 731E 732<br>733 733A 733B 733E                 | 1 610.6-1 613.8 AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY Radiodetermination- Satellite (Earth-to-space)  | 722 727 730 731E<br>732 733 733A 733B<br>733E 734                | 1 613.8-1 626.5 AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (Earth-to-space) Radiodetermination- Satellite (Earth-to-space) Mobile-Satellite (space-to-Earth)  | 722 727 730 731E    |

| 1 555-1 559     |  |
|-----------------|--|
|                 | SILE-SA I ELLI I E (Spa  |
|                 | /22 /26A /26U /29 /3UB   |
| 1 559-1 610     | AERONAUTICAL RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth)                           |
|                 | 722  |
| 1 610-1 610.6   | AERONAUTICAL RADIONAVIGATION<br>MOBILE-SATELLITE (Earth-to-space) C48                                |
|                 |  |
|                 | 722 731E 732 733 733A 733E   |
| 1 610.6-1 613.8 | AERONAUTICAL RADIONAVIGATION<br>MOBILE-SATELLITE (Earth-to-space) C48<br>RADIOASTRONOMY              |
|                 | 722 731E 732 733 733A 733E 734   |
| 1 613.8-1 626.5 | AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (Earth-to-space) C48 Mobile-Satellite (space-to-Earth) |
|                 | 722 731E 731F 732 733 733A 733E  |

# CANADIAN ALLOCATION TABLE

MOBILE-SATELLITE (Earth-to-space)

1 626.5-1 645.5

| REGION 1   | REGION 2 REGION 3   |   |
|--|---|---|
| <br>1 626.5-1 631.5 MARTINE MOBILE- SATELLITE (Earth-to-space) Land Mobile-Satellite (Earth-to-space) 7268 | 1 626.5-1 631.5<br>MOBILE-SATELLITE (Earth-to-space)                                      |   |
| 722 726A 726D<br>727 730   | 722 726A 726C 726D 727 730  |   |
| 1 631.5-1 634.5  | MARITIME MOBILE-SATELLITE (Earth-to-space)<br>LAND MOBILE-SATELLITE (Earth-to-space)      |   |
|  | 722 726A 726C 726D 727 730 734A   |   |
| 1 634.5-1 645.5  | MARITIME MOBILE-SATELLITE (Earth-to-space)<br>Land Mobile-Satellite (Earth-to-space) 726B |   |
|  | 722 726A 726C 726D 727 730  |   |
| 1 645.5-1 646.5  | ILE-SA  |   |
|  | 722 726D 734B   |   |
| 1 646.5-1 656.5  | AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space) 722 7269 727 729A 730 735              |   |
|  |   | T |
| 1 656.5-1 660  | LAND MOBILE-SATELLITE (Earth-to-space)  |   |
|  | 722 726A 726D 727 730 730A 730B 730C 734A   | < |
| <br>1 660-1 660.5  | RADIO ASTRONOMY<br>LAND MOBILE-SATELLITE (Earth-to-space)                                 |   |
|  | 722 726A 726D 730A 730B 730C 736  |   |
| 1 660.5-1 668.4  | RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>Fixed<br>Mobile except aeronautical mobile |   |
|  | 722 736 737 738 739   |   |
| 1 668.4-1 670  | METEOROLOGICAL AIDS<br>FIXED<br>MOBILE except aeronautical mobile<br>RADIO ASTRONOMY      |   |
|  | 722 736   |   |

AERONAUTICAL MOBILE-SATELLITE (R) (Earth-to-space) Mobile-Satellite (Earth-to-space)

MOBILE-SATELLITE (Earth-to-space)

1 656.5-1 660

722 726A 726D 730B

1 660-1 660.5

722 726A 726D 729A 735

MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY

722 726A 726D 730B 736

1 660.5-1 668.4

RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed

FIXED
METEOROLOGICAL AIDS
RADIO ASTRONOMY

1 668.4-1 670

722 736

MOBILE-SATELLITE (Earth-to-space)

1 645.5-1 646.5

722 726D 734B

1 646.5-1 656.5

722 726A 726C 726D

| 1670-1675   HEEDROLOGICAL AIDS   | REGION 1   | REGION 2   | REGION 3   |
|--|--|--|--|
| 722 690 METEOROLOGICAL AIDS FIXED FI | 670-1  | METEOROLOGICAL AIDS<br>FIXED<br>METEOROLOGICAL-SATELLI'<br>MOBILE 740A   | TE (space-to-Earth)  |
| 690 METEOROLOGICAL AIDS FIXED FIXED FIXED FIXED SATELITE (space-to-Earth) MOBILE except aeronautical mobile MOBILE except (arth-to-space)  722 735A 700 METEOROLOGICAL- SATELITE (Earth-to-space) 1 690-1 700 METEOROLOGICAL- SATELITE (Earth-to-space) 1 690-1 700 METEOROLOGICAL- SATELITE (Earth-to-space) 1 700-1 710 FIXED MOBILE except (Earth-to-space) 1 700-1 710 FIXED MOBILE except ACOUNTY MOBILE except SATELITE (Earth-to-space) 1 700-1 710 FIXED MOBILE except ACOUNTY MOBILE except ACOUNTY SATELITE (Earth-to-space) FIXED MOBILE FORD FIXED MOBILE FORD FIXED MOBILE FORD FIXED MOBILE FORD FIXED FIX |  | 722  |  |
| 722 735A 700 1690-1700 METEOROLGGICAL AIDS METEOROLGGICAL 170-1710 1700-1700 1700-1700 | 1 675-1 690 METEOROLOGICAL AIDS FIXED METEOROLOGICAL- SATELITE (space-to-Earth) MOBILE except aeronautical mobile  | 1 675-1 690 METEOROLOGICAL AIDS FIXED METEOROLOGICAL- SATELLITE (space-to-earth) MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) | 1 675-1 690 METEOROLOGICAL AIDS FIXED METEOROLOGICAL- STACLLITE (space-to-Earth) MOBILE except aeronautical mobile |
| 700 METEOROLOGICAL AIDS METEOROLOGICAL LITE (Space-to-Earth) MOBILE-SATELLITE (Space-to-Earth) MOBILE-SATELLITE (Earth-to-space) 1 700-1 710 FIXED FIXED FIXED FIXED FIXED FIXED MOBILE-SATELLITE (Space-to-Earth) MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space)  2 671 722 735A 740  710 FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) FIXED MOBILE 740A  722 744 745 746 746A  746A  | 722  |  | 722  |
| 1700-1710  | 1 690-1 700 METEOROLOGICAL AIDS METEOROLOGICAL- SATELLITE (space-to-Earth) Fixed Mobile except aeronautical mobile | 1 690-1 700 METEOROLOGICAL AIDS METEOROLOGICAL- SATELLITE (Space-to-Earth) MOBILE-SATELLITE (Earth-to-space)   | 1 690-1 700 METEOROLOGICAL AIDS METEOROLOGICAL- SATELLITE (space-to-Earth)   |
| 710 FIXED OLOGICAL FIXED NETECOROLOGICAL- NATELLITE (Space-to-Earth) NOBILE except aeronautical mobile NOBILE-SATELLITE (Earth-to-space)  671 722 735A 722 744 745 746 746A 722 744 745 746 746A 726 746A 746A   | 722  | 722 735A   | 722  |
| 2 671 722 735A 671 722 930 FIXED MOBILE 740A 722 744 745 746 746A 970 1930-1970 FIXED MOBILE Mobile-Satellite (Earth-to-space) 746A 746A   | 1700-1710 FIXED METEOROLOGICAL SATELLITE (Space-to-Earth) MOBILE except aeronautical mobile                        | 1 700-1 710 FIXED METEOROLOGICAL- SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space)                     | 1 700-1 710 FIXED METEOROLOGICAL- SATELLITE (space-to-Earth) MOBILE except aeronautical mobile                     |
| 930 FIXED MOBILE 740A 722 744 745 746 746A 970 1 930-1 970 FIXED MOBILE Mobile-Satellite (Earth-to-space) 746A 746A  |  | 722  | 722  |
| 970 1 930-1 970 1 930-1 PIXED FIXED MOBILE MOBILE (Earth-to-space) 746A 746A   | 1 710-1 930  | E 740A   |  |
| 746A   |  | (e)  | <b>₹ Ш</b>   |
|  | 746A   | 746A   | 746A   |

| 1 670-1 675 | and the second s |
|-------------|--|
|             | METEOROLOGICAL AIDS<br>METEOROLOGICAL-SATELLITE (space-to-Earth)   |
|             | 722 C33  |
| 1 675-1 700 | METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (Earth-to-space) C32  |
|             | 671 722 735A   |
| 1 700-1 710 | FIXED METEOROLOGICAL-SATELLITE (space-to-Earth)  |
|             | 671 722  |
| 1 710-1 850 | FIXED Mobile C5 722 744 745 C33  |
| 1 850-1 970 | )<br>NE  |
|             | 746A C35   |
|             |  |

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| REGION 1                       | REGION 2   | REGION 3                       |
|--------------------------------|--|--------------------------------|
| 1 970-1 980<br>FIXED<br>MOBILE | 1 970-1 980<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE<br>(Earth-to-space)   | 1 970-1 980<br>FIXED<br>MOBILE |
| 746A                           | 746A 746B 746C   | 746A                           |
| 1 980-2 010                    | FIXED MOBILE MOBILE-SATELLITE (Earth-to-space)   | )-space)                       |
| 2 010-2 025                    | щ  |                                |
| 2 025-2 110                    | FIXED MOBILE 747A SPACE RESEARCH (Earth-to-space) (space-to-space) Space-to-space) (space-to-space) EARTH EXPLORATION-SATELLITE (Earth-to-space) | o-space)<br>LLLITE<br>space)   |
|                                | 750A   |                                |
| 2 110-2 120                    | FIXED MOBILE SPACE RESEARCH (deep space) (Earth-to-space) 746A   | ace)                           |
| 2 120-2 160<br>FIXED<br>MOBILE | 2 120-2 160<br>FIXED<br>MOBILE<br>Mobile-Satellite<br>(space-to-Earth)   | 2 120-2 160<br>FIXED<br>MOBILE |
| 746A                           | 746A   | 746A                           |
| 2 160-2 170<br>FIXED<br>MOBILE | 2 160-2 170<br>FIXED<br>MOBILE-SATELLITE<br>(space-to-Earth)   | 2 160-2 170<br>FIXED<br>MOBILE |
| 746A                           | 746A 746B 746C   | 746A                           |
| 2 170-2 200                    | FIXED<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth)   | to-Earth)                      |
|                                | 746A 746B 746C   |                                |

| 21 112 | ALLOCATION TABLE |
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|        | CANADIAN A       |

| 1 970-2 010 | FIXED<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space) C48  |
|-------------|---|
|             |   |
|             | 746A 746B C35 C35A C36  |
| 2 010-2 025 | FIXED MOBILE C34  |
|             | 746A  |
| 2 025-2 110 | EARTH EXPLORATION-SATELLITE  (Farth-to-space) (space-to-space)  FIXED  SPACE OPERATION (Earth-to-space) (space-to-space)  SPACE RESEARCH (Earth-to-space) (space-to-space)  Mobile C5 |
|             | 747A 750A   |
| 2 110-2 120 | FIXED<br>MOBILE<br>SPACE RESEARCH (deep space) (Earth-to-space)<br>746A C35A  |
|             |   |
| 2 120-2 160 | FIXED<br>MOBILE   |
|             | 7 V V V V V V V V V V V V V V V V V V V   |
| 0           |   |
| 2 160-2 200 | FIXED<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth) C48  |
|             |   |
|             |   |
|             | 746A 746B C35A C36  |
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| EARTH EXPLORATION-SATELLITE (space-to-farth) (space-to-space) FIXED SPACE RESEARCH (space-to-Earth) (space-to-space) SPACE OPERATION (space-to-Farth) (space-to-space) Mobile C5 | FIXED SPACE RESEARCH (deep space) (space-to-Earth) Mobile C5 | O<br>OLOC<br>teur | FIXED MOBILE 751 RADIOLOCATION |               |
|--|--|-------------------|--------------------------------|---------------|
| 2 200-2 290  | 2 290-2 300  | 2 300-2 450       | 2 450-2 483.5                  | 2 483.5-2 500 |

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| REGION 1  | REGION 2  | REGION 3   |
|---|---|--|
| 2 200-2 290   | FIXED SPACE RESEARCH (space-to-Earth) (space-to-space) SPACE OPERATION (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) MOBILE 747A | -Earth) (space-to-space)<br>o-Earth) (space-to-space)<br>LLITE (space-to-Earth)  |
| 2 290-2 300   | 750A FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)   | nobile<br>ce) (space-to-Earth)   |
| 2 300-2 450<br>FIXED<br>MOBILE<br>Amateur<br>Radiolocation                                | 2 300-2 450<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>Amateur  |  |
| 664 751A 752  | 664 7508 751 7518 752   |  |
| 2 450-2 483.5<br>FIXED<br>MOBILE<br>Radiolocation   | 2 450-2 483.5<br>FIXED<br>MOBILE<br>RADIOLOCATION   |  |
| 752 753   | 751 752   |  |
| 2 483.5-2 500<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE<br>(space-to-Earth)<br>Radiolocation | 2 483.5-2 500 FIXED MOBILE RADIODETERMINATION- SATELLITE (Space-to-Earth) MOBILE-SATELLITE (Space-to-Earth)   | 2 483.5-2 500<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>MOBILE-SATELLITE<br>(space-to-Earth)<br>Radiodetermination-<br>sarellite<br>(space-to-Earth) 753A |
| 733F 752 753 753A<br>753B 753C 753F   | 752 753D 753F   | 752 753C 753F  |

| REGION 1  | REGION 2  | REGION 3   |
|---|---|--|
| 2 500-2 520 FIXED 762 763 764 MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth)   | 2 500-2 520<br>FIXED 762 764<br>FIXED-SATELLITE (space-to-Earth) 761<br>MOBILE except aeronautical mobile<br>MOBILE-SATELLITE (space-to-Earth)  | Earth) 761<br>mobile<br>o-Earth)   |
| 754 754B 755A<br>756 759 760A   | 754 754A 755 755A 760A  | 0A   |
| 2 520-2 655 FIXED 762 763 764 MOBILE except aeronautical mobile BROADCASTING. SATELLITE 757 760   | 2 520-2 655 FIXED 762 764 FIXED-SATELLITE (space-to-Earth) 761 MOBILE except aeronautical mobile BROADCASTING- SATELLITE 757 760  | 2 520-2 535 FIXED 762 764 FIXED-SATELLITE (space-to-Earth) 761 MOBILE except aeronautical mobile BROADCASTING- SATELLITE 757 760   |
|   |   | 754  |
|   |   | 2 535-2 655<br>FIXED 762 764<br>MOBILE except<br>aeronautical mobile<br>BROADCASTING-<br>SATELLITE 757 760   |
| 720 754 754B<br>756 757A 758 759  | 720 754 755   | 720 757A   |
| 2 655-2 670 FIXED 762 763 764 MOBILE except aeronautical mobile BROADCASTING- SATELLITE 757 760 Earth Exploration- Satellite (passive) Radio Astronomy Space Research (passive)   | 2 655-2 670 FIXED 762 764 FIXED-SATELLITE (Farth-to-space) (Space-to-Earth) 761 MOBILE except aeronautical mobile BROADCASTING- SATELLITE 757 760 Earth Exploration- Satellite (passive) Radio Astronomy Space Research (passive)   | 2 655-2 670 FIXED 762 764 FIXED SATELLITE (Earth-to-space) 761 MOBILE except aeronautical mobile BROADCASTING- SATELLITE 757 760 Earth Exploration- Satellite (passive) Radio Astronomy Space Research (passive) |
| 758 759 765 766   | 765 766   | 765 766  |
| 2 670-2 690 FIXED 762 763 764 MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) Earth Exploration- Satellite (passive) Radio Astronomy Space Research (passive) | 2 670-2 690 FIXED 762 764 FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 761 MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) Earth Exploration- Satellite (passive) Radio Astronomy Space Research (passive) | 2 670-2 690 FIXED 762 764 FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) Earth-Exploration- Satellite (passive) Radio Astronomy Space Research (passive)   |
| 764A 765 766  | 764A 765 766  | 764A 765 766   |

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| REGION 1 | 2 690-2 700  |             | 2 700-2 900                                |         | 2 900-3 100                       |          | 3 100-3 300   |             | 3 300-3 400<br>RADIOLOCATION                               | 778 779 780 | 3 400-3 500<br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth)<br>Mobile<br>Radiolocation             |  |
|----------|--|-------------|--|---------|-----------------------------------|----------|---------------|-------------|--|-------------|--|--|
| REGION 2 | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) | 767 768 769 | AERONAUTICAL RADIONAVIGATION Radiolocation | 177 077 | RADIONAVIGATION 773 Radiolocation | 772 775A | RADIOLOCATION | 713 777 778 | 3 300-3 400<br>RADIOLOCATION<br>Amateur<br>Fixed<br>Mobile | 778 780     | 3 400-3 500<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>Amateur<br>Mobile<br>Radiolocation 784 |  |
| REGION 3 | LITE (passive)   |             | SATION 717                                 |         |                                   |          |               |             | 3 300-3 400<br>RADIOLOCATION<br>Amateur                    | 778 779     | arth)  |  |

| 2 700-2 850  AERONAUTICAL RADIONAVIGATION 717  Radiolocation  AERONAUTICAL RADIONAVIGATION 717  ARRITHME ADDIONAVIGATION 771 C14  Radiolocation  772 775A  3 100-3 300  RADIOLOCATION 777  713 778  3 300-3 500  RADIOLOCATION 784 C5  Amateur 664   | 2 690-2 700 | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)        |
|--|-------------|---|
| 768 700-2 850  AERONAUTICAL RADIONAVIGATION Radiolocation MARITINE RADIONAVIGATION 771 Radiolocation Radiolocation 772 775A 772 775A 713 778 713 778 RADIOLOCATION 777 |             |   |
| 700-2 850  Radiolocation  770  AERONAUTICAL RADIONAVIGATION  MARITIME RADIONAVIGATION 771  Radiolocation  772 775A  772 775A  713 778  713 778  RADIOLOCATION 784 C5  Amateur 664  |             | 768   |
| AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION 771 Radiolocation 772 775A 772 775A 773 778 713 778 RADIOLOCATION 777 Amateur 664 Amateur 664  | 2 700-2 850 |   |
| 850-2 900  AERONAUTICAL RADIONAVIGATION 771  Radiolocation  772 775A  772 775A  713 778  300-3 500  RADIOLOCATION 784 C5  Amateur 664  |             | 770   |
| 900-3 100  Radiolocation 772 775A 772 775A 713 778 713 778 713 778 713 778 713 778 713 778 713 778 714 777   | 850-2       | AERONAUTICAL RADIONAVIGATION 717<br>MARITIME RADIONAVIGATION 771 C14<br>Radiolocation |
| 900-3 100  RADIONAVIGATION 77  Radiolocation  772 775A  772 775A  713 778  300-3 500  RADIOLOCATION 784  Amateur 664   |             |   |
| RADIOLOCATION 777 713 778 RADIOLOCATION 784 Amateur 664  | 2 900-3 100 | 1   |
| RADIOLOCATION 777 713 778 RADIOLOCATION 784 Amateur 664  |             |   |
| 713 778  RADIOLOCATION 784  Amateur 664  | 100-3       |   |
| RADIOLOCATION 784<br>Amateur 664   |             |   |
|  | 3 300-3 500 | 784   |
|  |             |   |
| 977  |             | 077   |

| REGION 1 REGION 2 REGION 3 | 3 500-3 700 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile Radiolocation 784 786 | TELLITE FIXED FIXE | AERONAUTICAL RADIONAVIGATION 789 | FIXED MOBILE | 500<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 792A<br>MOBILE | MOBILE 793 Radio Astronomy | FIXED MOBILE ex RADIO AS' Space Rese |
|----------------------------|--|--|----------------------------------|--------------|---|----------------------------|--------------------------------------|
| REGION 1                   | 3 500-3 600<br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth)<br>Mobile<br>Radiolocation<br>781 785          | 3 600-4 200<br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth)<br>Mobile  | 4 200-4 400                      | 4 400-4 500  | 4 500-4 800   | 4 800-4 990                | 4 990-5 000                          |

| 3 500-4 200 FIXED-SATELLITE (space-to-Earth)  4 200-4 400 AERONAUTICAL RADIONAVIGATION 789 791 A 400-4 500 FIXED F |             |   |
|--|-------------|---|
| AERONAUTICAL RADIONAVIGATION 791 FIXED FIXED FIXED Radio Astronomy 778 FIXED RADIO ASTRONOMY 794 720 C25   | 3 500-4 200 | FIXED-SATELLITE (space-to-Earth)                            |
| FIXED FIXED FIXED FIXED FIXED Radio Astronomy 778 FIXED RADIO ASTRONO 720 C25  | 4 200-4 400 |   |
| FIXED FIXED Radio Astronomy 778 FIXED RADIO ASTRONO 778 FIXED RADIO ASTRONO 720 C25  |             | FIXED<br>C25  |
| FIXED Radio Astronomy 778 FIXED RADIO ASTRONOMY C25 FIXED RADIO ASTRONOMY 720 C25 FIXED RADIO ASTRONOMY Space Research (passi  | 4 500-4 800 | SATELLITE<br>C25  |
| FIXED RADIO ASTRONOMY 778 950 FIXED Radio Astronomy C25 890 FIXED RADIO ASTRONOMY 720 C25 RADIO ASTRONOMY Space Research (passi  | 4 800-4 825 | FIXED<br>Radio Astronomy<br>778                             |
| 950 Radio Astronomy C25 990 FIXED RADIO ASTRONOMY 720 C25 RADIO ASTRONOMY Space Research (passis)  | 4 825-4 835 | ASTRONOMY   |
| 950-4 990 FIXED RADIO ASTRONOMY 720 C25 990-5 000 FIXED RADIO ASTRONOMY Space Research (passis)  |             | FIXED<br>Radio Astronomy<br>C25                             |
| 000-5-066  | 950-4       | ASTRONOMY<br>25   |
| 795  | 4 990-5 000 | FIXED<br>RADIO ASTRONOMY<br>Space Research (passive)<br>795 |

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|--|---|
|  | AERONAUTICAL RADIONAVIGATION<br>733 796 797 797A 797B   |
| 250-5 255  | RADIOLOCATION<br>Space Research   |
|  | 713 798   |
| 255-5 350  | RADIOLOCATION   |
|  | 713 798   |
| 350-5 460  | AERONAUTICAL RADIONAVIGATION<br>Radiolocation   |
| 460-5 470  | RADIONAVIGATION 799<br>Radiolocation  |
| 470-5 650  | MARITIME RADIONAVIGATION Radiolocation  |
|  | 800 801 802   |
| 5 650-5 725  | RADIOLOCATION<br>Amateur<br>Space Research (deep space)   |
|  | 664 801 803 804 805   |
| 5 725-5 850<br>FIXED-SATELLITE<br>(Earth-to-space)<br>RADIOLOCATION<br>Amateur | 5 725-5 850<br>RADIOLOCATION<br>Amateur   |
| 801 803 805<br>806 807 808   | 803 805 806 808   |
| 5 850-5 925<br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space)<br>MOBILE          | 5 850-5 925<br>FIXED<br>FIXED-SATELLITE<br>(Farth-to-space)<br>MOBILE<br>Amateur<br>Radiolocation |
| 806  | 806   |
| 925-7 075  | FIXED<br>FIXED-SATELLITE (Earth-to-space) 792A<br>MOBILE  |
|  | 791 809   |

| 5 000-5 250 | AERONAUTICAL RADIONAVIGATION                                   |
|-------------|--|
|             | 733 796 797  |
| 5 250-5 255 | RADIOLOCATION<br>Space Research                                |
|             | 713  |
| 5 255-5 350 | RADIOLOCATION  |
| 5 350-5 460 | 713  AERONAUTICAL RADIONAVIGATION 799 Radiolocation            |
| 5 460-5 470 | RADIONAVIGATION 799 Radiolocation                              |
| 5 470-5 650 | MARITIME RADIONAVIGATION<br>Radiolocation<br>802               |
| 5 650-5 725 | RADIOLOCATION<br>Amateur<br>Space Research (deep space)<br>664 |
| 5 725-5 850 | RADIOLOCATION<br>Amateur                                       |
|             | 806 808  |
| 5 850-5 925 |  |
|             | 806  |
| 5 925-7 075 | FIXED<br>FIXED-SATELLITE (Earth-to-space) 792A C40             |
|             | 791 809  |

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## ITU ALLOCATION TO SERVICES

| REGION 3 |                                | Earth)   | arth)<br>mobile  | earth)<br>TE (space-to-Earth)<br>mobile  | earth)<br>mobile   | nobile                                  | (ace)   | 8 025-8 175 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Farelite (space-to Earth) 813 815                     |
|----------|--------------------------------|--|--|--|--|---|---|---|
| REGION 2 | FIXED<br>MOBILE<br>809 810 811 | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>812 | FIXED FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 812 | FIXED FIXED-SATELLITE (space-to-Earth) MFTEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile | FIXED MOBILE except aeronautical mobile | FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE | 8 025-8 175 EATH EXPLORATION- SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 814      |
| REGION 1 | 7 075-7 250                    | 7 250-7 300  | 7 300-7 450  | 7 450-7 550  | 7 550-7 750  | 7 750-7 900                             | 7 900-8 025   | 8 025-8 175 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration- Sarellite (space-to-Earth) 813 815 |

| FIXED 811   | FIXED-SATELLITE (space-to-Earth) C49 MOBILE-SATELLITE 812 C50 | FIXED-SATELLITE (space-to-Earth) C49 | FIXED FIXED-SATELLITE (space-to-Earth) C49 METEOROLOGICAL-SATELLITE (space-to-Earth) | FIXED.SATELLITE (space-to-Earth) C49 | FIXED       | FIXED-SATELLITE (Earth-to-space) C49 | FIXED-SATELLITE (Earth-to-space) C49<br>MOBILE-SATELLITE 812 C50 | EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) C49 |
|-------------|---|--------------------------------------|--|--------------------------------------|-------------|--------------------------------------|--|---|
| 7 075-7 250 | 7 250-7 300   | 7 300-7 450                          | 7 450-7 550  | 7 550-7 750                          | 7 750-7 900 | 7 900-7 975                          | 7 975-8 025  | 8 025-8 175   |

| 175-8 215  | REGION 1   | REGION 2   | REGION 3   |
|--|--|--|--|
| 400 EARTH EXPLORATION- SATELLITE (FARD-SATELLITE (Farth-to-space) MOBILE 814 SADIOLOCATION T13 819 820 RADIOLOCATION AEDIOLOCATION AERONAUTICAL RADIONAVIGATIO 822 300 RADIOLOCATION MARITIME RADIONAVIGATION RADIONAVICANA | 8 175-8 215 FIXED FIXED-SATELLITE (Farth-to-space) METEOROLOGICAL- SATELLITE (Farth-to-space) MOBILE Earth Exploration- Satellite (space-to-Earth) 813 815 | 8 175-8 215 EARTH EXPLORATION- (space-to-Earth) FIXED FIXED FIXED FIXED FIXED FIXED SATELLITE (Earth-to-space) METEOROLOGICAL- SATELLITE (Earth-to-space) MOBILE 814   | 8 175-8 215 FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL- SATELLITE (Earth-to-space) MOBILE Earth Exploration- Satellite (space-to-Earth) 813 815 |
| 500 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 816 818 750 RADIOLOCATION 713 819 820 822 000 RADIOLOCATION AERONAUTICAL RADIONAVIGATION 823 824 200 RADIOLOCATION MARITIME RADIONAVIGATION 717 Radiolocation 822 300 RADIOLOCATION MARITIME RADIONAVIGATION 823 824 824 8248 500 RADIOLOCATION MARITIME RADIONAVIGATION 823 824 8248 500 RADIONAVIGATION 825A Radiolocation 775A 824A 825   | 8 215-8 400 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration- Satellite (space-to-Earth) 813 815  | 8 215-8 400 EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIX | 8 215-8 400<br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space)<br>MOBILE<br>Earth Exploration-<br>Sarellite<br>(space-to-Earth)<br>813 815                    |
| 500-8 750  RADIOLOCATION 713 819 820 750-8 850  RADIOLOCATION 822 850-9 000  RADIOLOCATION MARITIME RADIONAVIGATION 823 824 200-9 300  RADIOLOCATION Radiolocation 822 200-9 300  RADIOLOCATION MARITIME RADIONAVIGATION 823 824 824A 300-9 500  RADIONAVIGATION 825A Radiolocation 775A 824 825   | 8 400-8 500  | FIXED MOBILE except aeronautical SPACE RESEARCH (space-t   | 816  |
| RADIOLOCATION  822  RADIOLOCATION  MARITIME RADIONAVIGATION 823  824  AERONAUTICAL RADIONAVIGATION  822  RADIOLOCATION  MARITIME RADIONAVIGATION 823  824  RADIONAVIGATION  RADIONAVIGATION  RADIONAVIGATION 825A  RADIONAVIGATION 825A  RADIONAVIGATION 825A  RADIONAVIGATION 825A  RADIONAVIGATION 825A  RADIONAVIGATION 825A  | 500-8  | RADIOLOCATION<br>713 819 820   |  |
| 850-9 000  RADIOLOCATION MARITIME RADIONAVIGATION 823  824  822  200-9 300  RADIOLOCATION MARITIME RADIONAVIGATION 823  824 824A  300-9 500  RADIONAVIGATION 825A Radiolocation 775A 824A 825  | 8 750-8 850  | RADIOLOCATION<br>AERONAUTICAL RADIONAN<br>822  | IGATION 821  |
| AERONAUTICAL RADIONAVIGATION Radiolocation 320 RADIOLOCATION MARITIME RADIONAVIGATION 823 824 824A 500 RADIONAVIGATION 825A Radiolocation 775A 824A 825  | 8 850-9 000  | RADIOLOCATION MARITIME RADIONAVIGAT 824  |  |
| 200-9 300  RADIOLOCATION MARITIME RADIONAVIGATION 824 824A 300-9 500  RADIONAVIGATION 825A Radiolocation 775A 824A 825   |  | AERONAUTICAL RADIONAN<br>Radiolocation<br>822  | ì  |
| 300-9 500  | 200-9  | RADIOLOCATION<br>MARITIME RADIONAVIGAT<br>824 824A   |  |
|  | 9 300-9 500  | RADIONAVIGATION 825A<br>Radiolocation<br>775A 824A 825   |  |

| REGION 3 |                                   |              |             |
|----------|-----------------------------------|--------------|-------------|
| REGION 2 | RADIOLOCATION RADIONAVIGATION 713 | Fixed Fixed  | 826 827 828 |
| REGION 1 | 9 500-9 800                       | 9 800-10 000 |             |

9 500-9 800

RADIONAVIGATION
Fixed

Fixed

828

|   | REGION 1  | REGION 2   | REGION 3  |
|---|---|--|---|
|   | 10-10.45<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>Amateur   | 10-10.45<br>RADIOLOCATION<br>Amateur   | 10-10.45<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>Amateur |
|   | 828   | 828 829  | 828   |
|   | 10.45-10.5  | RADIOLOCATION<br>Amateur<br>Amateur-Satellite  |   |
|   |   | 830  |   |
|   | 10.5-10.55<br>FIXED<br>MOBILE<br>Radiolocation  | 10.5-10.55<br>FIXED<br>MOBILE<br>RADIOLOCATION   |   |
| • | 10.55-10.6  | FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation  | mobile  |
|   | 10.6-10.68  | EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation | LLITE (passive)<br>mobile                               |
|   |   | 831 832  |   |
|   | 10.68-10.7  |  | LLITE (passive)   |
|   |   | 833 834  |   |
|   | 10.7-11.7<br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space)<br>(space-to-Earth)<br>792A 835<br>MOBILE except<br>aeronautical mobile | 10.7-11.7<br>FIXED<br>FIXED-SA FELLIFE (space-to-Earth)<br>MOBILE except aeronautical mobile   | Earth) 792A<br>mobile                                   |
|   |   |  |   |

| 10-10.45   | MOITAGO IOIGAA   |
|------------|--|
|            | Amateur  |
|            | 878  |
| 10.45-10.5 | RADIOLOCATION<br>Amateur<br>Amateur-Satellite  |
| 10.5-10.55 | FIXED RADIOLOCATION  |
| 10.55-10.6 | FIXED  |
| 10.6-10.68 | EARTH EXPLORATION-SATELLITE (passive) FIXED RADIO ASTRONOMY SPACE RESEARCH (passive) |
| 10.68-10.7 | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)       |
| 10.7-11.45 | FIXED-SATELLITE (space-to-Earth) 792A  |
| 11.45-11.7 | FIXED FIXED SATELLITE (space-to-Earth) C41   |
|            |  |

## CANADIAN ALLOCATION TABLE

| REGION 1   | REGION 2  | REGION 3   |
|--|---|--|
| 11.7-12.5 FIXED BROADCASTING BROADCASTING- SATELLITE Mobile except aeronautical mobile | 11.7-12.1<br>FIXED 837<br>FIXED-SATELLITE<br>(space-to-Earth)<br>Mobile except<br>aeronautical mobile<br>836 839            | 11.7-12.2<br>FIXED<br>MOBILE except<br>aeronautical mobile<br>BROADCASTING<br>BROADCASTING-<br>SATELLITE |
|  | 12.1-12.2<br>FIXED-SATELLITE<br>(space-to-Earth)<br>836 839 842   | 838  |
| 88.8   | 12.2-12.7 FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING- SATELLITE                                      | 12.2-12.5<br>FIXED<br>MOBILE except<br>aeronautical mobile<br>BROADCASTING                               |
| 12.5-12.75<br>FIXED-SATELLITE<br>(Earth-to-space)                                      | 839 844 846   | 12.5-12.75<br>FIXED<br>FIXED-SATELLITE   |
| (space-to-Earth)   | FIXED FIXED-SATELLITE FIXED-SATELLITE (Earth-to-space) MOBILE except aeronuatical mobile                                    | (space-to-Earth) MOBILE except aeronautical mobile BROADCASTING- SATELLITE 847                           |
| 848 849 850  |   |  |
| 12.75-13.25  | FIXED-SATELLITE (Earth-to-space) 792A<br>MOBILE<br>Space Research (space-to-Earth) (deep space)                             | pace) 792A<br>th) (deep space)   |
| 13.25-13.4   | AERONAUTICAL RADIONAVIGATON   | IGATON 851   |
|  | 852 853   |  |
| 13.4-13.75   | RADIOLOCATION Standard Frequency and Time Signal-Satellite (Earth-to-space) Space Research                                  | s Signal-Satellite   |
|  | 713 853 854 855   |  |
| 13.75-14   | RADIOLOCATION FIXED-SATELLITE (Earth-to-space) Standard Frequency and Time Signal-Satellite (Earth-to-space) Space Research | pace)<br>e Signal-Satellite  |
|  | 713 853 854 855 855A  | 855B   |

| 1.7.12.2   | FIXED-SATELLITE (space-to-Earth)   |
|------------|--|
|            |  |
|            | 0  |
| 2.2-12.7   | BROADCASTING BROADCASTING C43 C47 FIXED  |
|            | 844  |
| 2.7-12.75  | FIXED-SATELLITE (Earth-to-space)   |
| 2.75-13.25 | FIXED-SATELLITE (Earth-to-space) 792A  |
| 3.25-13.4  | AERONAUTICAL RADIONAVIGATION 851   |
|            | 852  |
| 3.4-13.75  | RADIOLOCATION Standard Frequency and Time Signal-Satellite (Earth-to-space) Space Research                       |
|            | 713  |
| 3.75-14    | FIXED-SATELLITE (Earth-to-space) C41 RADIOLOCATION Standard Frequency and Time Signal-Satellite (Earth-to-space) |
|            | 713 855A 855B  |

### Canadian Table of Frequency Allocations

ITU ALLOCATION TO SERVICES

| REGION 1   | REGION 2   | REGION 3  |
|--|--|---|
| 14-14.25   | FIXED-SATELLITE (Earth-to-space) RADIONAVIGATION 856 Space Research 857 859                              | pace) 858   |
| 14.25-14.3   |  | pace) 858   |
|  | 857 859 860 861  |   |
| 14.3-14.4<br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) 858<br>MOBILE except<br>aeronautical mobile<br>Radionavigation-<br>Satellite | 14.3-14.4<br>FIXED-SATELLITE<br>(Earth-to-space) 858<br>Radionavigation-<br>Satellite                    | 14.3-14.4 FIXED FIXED-SATELLITE (Earth-to-space) 858 MOBILE except aeronautical mobile Radionavigation- Satellite |
| 859  | 859  | 859   |
| 14.4-14.47   | HIXED FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile Space Research (space-to-Earth) | pace) 858<br>nobile<br>rth)   |
|  | 859  |   |
| 14.47-14.5   | FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE except aeronautical mobile<br>Radio Astronomy        | space) 858<br>nobile  |
|  | 859 862  |   |
| 14.5-14.8  | FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>Space Research                                    | pace) 863   |
| 14.8-15.35   |  |   |
|  | FIXED<br>MOBILE<br>Space Research  |   |
|  | 720  |   |
| 15.35-15.4   | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)                           | LLITE (passive)   |
|  | 864 865  |   |
| 15.4-15.7  | AERONAUTICAL RADIONAVIGATION   | IGATION   |
|  | 733 797  |   |

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| REGION 3 |               |         | e) (deep space)   |         |               |         | tive)  |         | 17.3.17.7<br>FIXED-SATELLITE<br>(Earth-to-space) 869<br>Radiolocation                               | 868           | 17.7-18.1<br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth)<br>(Earth-to-space) 869<br>MOBILE               |             | Earth)   |          | Earth)  |
|----------|---------------|---------|---|---------|---------------|---------|--|---------|---|---------------|---|-------------|--|----------|---|
| REGION 2 | RADIOLOCATION | 866 867 | RADIOLOCATION<br>Space Research (Earth-to-space) (deep space) | 866 867 | RADIOLOCATION | 866 867 | RADIOLOCATION<br>Earth Exploration-Satellite (active)<br>Space Research (active) | 866 867 | 17.3-17.7<br>FIXED-SATELLITE<br>(Earth-to-space) 869<br>BROADCASTING-<br>SATELLITE<br>Radiolocation | 868 868A 869A | 17.7.17.8 FIXED FIXED-SATELLITE (space-to-Farth) (Earth-to-space) 869 BROADCASTING- SATELLITE Mobile 869B |             | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>(Earth-to-space) 870A<br>MOBILE | 870 8708 | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE |
| REGION 1 | 15.7-16.6     |         | 16.6-17.1   |         | 17.1-17.2     |         | 17.2-17.3  |         | 17.3-17.7<br>FIXED-SATELLITE<br>(Earth-to-space) 869<br>Radiolocation                               | 868           | 17.7-18.1<br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth)<br>(Earth-to-space) 869<br>MOBILE               |             | 18.1-18.4  |          | 18.4-18.6   |
|          |               |         | 2   |         | 400           | -       | -  |         | - <u></u>   | 00            | <u>← ፲ ፲ ≥</u>  |             | -  |          | -   |
|          |               |         |   | (e)     |               |         |  |         |   |               | -space) 869   | -space) 869 | o-space)   |          |   |

| 0 0 0     |  |
|-----------|--|
| 15.7-16.0 | RADIOLOCATION  |
| 16.6-17.1 | C42 RADIOLOCATION Space Research (Earth-to-space) (deep space)                                   |
| 17.1-17.2 | RADIOLOCATION  |
| 17.2.17.3 | RADIOLOCATION Earth Exploration-Satellite (active) Space Research (active)                       |
| 17.3-17.7 | BROADCASTING-SATELLITE<br>FIXED-SATELLITE (Earth-to-space) 869<br>Radiolocation                  |
|           | 868A 869A C43 C44 C47  |
| 17.7-17.8 | BROADCASTING-SATELLITE C46<br>FIXED C45<br>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 869 |
|           | 868A 869A C43 C44 C47  |
| 17.8-18.1 | FIXED<br>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 869                                   |
|           | C43 C47 C48  |
| 18.1-18.4 | FIXED<br>FIXED-SATELLITE (space-to-Earth) (Earth-to-space)<br>870A                               |
|           | 870 C43 C47 C48  |
| 18.4-18.6 | FIXED<br>FIXED.SATELLITE (space-to-Earth)  |
|           | C48  |

REGION 3

REGION 2

REGION 1

(space-to-Earth) 872 aeronautical mobile

MOBILE except

FIXED-SATELLITE

18.6-18.8

EARTH EXPLORATION-

SATELLITE (passive)

Satellite (passive) Space Research

aeronautical mobile SPACE RESEARCH

Satellite (passive)

Space Research

(passive)

18.8-19.7

Earth Exploration-

(passive)

(passive)

871

FIXED-SATELLITE (space-to-Earth) MOBILE

Earth Exploration -

(space-to-Earth) 872

MOBILE except

FIXED-SATELLITE

(space-to-Earth) 872 MOBILE except aeronautical mobile

FIXED FIXED-SATELLITE

FIXED-SATELLITE (space-to-Earth) Mobile-Satellite (space-to-Earth)

MOBILE-SATELLITE

FIXED-SATELLITE (space-to-Earth) (space-to-Earth)

FIXED-SATELLITE

(space-to-Earth) (space-to-Earth)

Mobile-Satellite

CANADIAN ALLOCATION TABLE

| 18.6-18.8 | EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) 672 SPACE RESEARCH (passive) |
|-----------|---|
|           | 871 C48   |
| 18.8-19.7 | FIXED FIXED-SATELLITE (space-to-Earth)  |
|           | C48   |
| 19.7-20.2 | FIXED-SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth)                                     |
|           | 873A 873B 873C 873D 873E  |
| 20.2-21.2 | SATELLITE (space-to<br>E-SATELLITE (space-<br>rd Frequency and Tin<br>e-to-Earth)                         |
| 21.2-21.4 | EARTH EXPLORATION-SATELLITE (passive) FIXED SPACE RESEARCH (passive) Mobile                               |
| 21.4-22   | FIXED<br>Mobile   |
| 22-22.21  | FIXED Mobile except aeronautical mobile   |
|           | 874   |

FIXED-SATELLITE (space-to-Earth)
MOBILE-SATELLITE (space-to-Earth)
Standard Frequency and Time Signal-Satellite

(space-to-Earth)

873

21.2-21.4

FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth)

20.1-20.2

873

873 873A 873B 873C 873D

20.2-21.2

873

873 873A 873B 873C 873D 873E

EARTH EXPLORATION-SATELLITE (passive)

SPACE RESEARCH (passive)

MOBILE FIXED

BROADCASTING-SATELLITE

21.4-22 FIXED MOBILE

21.4-22 FIXED MOBILE

21.4-22 MOBILE FIXED

BROADCASTING-

SATELLITE

22-22.21

873F

873F 873G

MOBILE except aeronautical mobile

## ITU ALLOCATION TO SERVICES

GHz

## CANADIAN ALLOCATION TABLE

| REGION 1             | REGION 2   | REGION 3  |
|----------------------|--|---|
| 22.21-22.5           | EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 875 876 | LITE (passive)<br>tobile                          |
| 22.5-22.55           | FIXED<br>MOBILE  |   |
| 22.55-23.55          | FIXED<br>INTER-SATELLITE<br>MOBILE   |   |
| 23.55-23.6           | FIXED  |   |
| 23.6-24              | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)   | .LITE (passive)                                   |
| 24-24.05             | AMATEUR<br>AMATEUR-SATELLITE<br>881  |   |
| 24.05-24.25          | RADIOLOCATION<br>Amateur<br>Earth Exploration-Satellite (active)<br>881  | (ive)   |
| 24.25-24.45<br>FIXED | 24.25-24.45<br>RADIONAVIGATION   | 24.25-24.45<br>RADIONAVIGATION<br>FIXED<br>MOBILE |

| 22.21-22.5  |  |
|-------------|--|
| 22.5-22.55  | B/3 B/b<br>FIXED<br>Mobile   |
| 22.55-23.55 | FIXED INTER-SATELLITE Mobile R79   |
| 23.55-23.6  | FIXED<br>Mobile  |
| 23.6-24     | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 880 |
| 24-24.05    | AMATEUR<br>AMATEUR-SATELLITE<br>881  |
| 24.05-24.25 | RADIOLOCATION<br>Amateur<br>Earth Exploration-Satellite (active)<br>881            |
| 24.25 24.45 | RADIONAVIGATION  |

### Canadian Table of Frequency Allocations

ITU ALLOCATION TO SERVICES

| REGION 1   | REGION 2   | REGION 3   |
|--|--|--|
| 24.45-24.65<br>FIXED<br>INTER-SATELLITE            | 24.45-24.65<br>RADIONAVIGATION<br>INTER-SATELLITE  | 24.45-24.65<br>RADIONAVIGATION<br>FIXED<br>INTER-SATELLITE<br>MOBILE       |
|  | 882E   | 882E   |
| 24.65-24.75<br>FIXED<br>INTER-SATELLITE            | 24.65-24.75 INTER-SATELLITE RADIOLOCATION- SATELLITE (Earth-to-space)  | 24.65-24.75<br>FIXED<br>INTER-SATELLITE<br>MOBILE                          |
|  |  | 882E 882F  |
| 24.75-25.25<br>FIXED                               | 24.75-25.25<br>FIXED-SATELLITE<br>(Earth-to-space) 882G  | 24.75-25.25<br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) 882G<br>MOBILE |
|  |  | 882F   |
| 25.25-25.5   | FIXED MOBILE INTER-SATELLITE 881A Standard Frequency and Time Signal-Satellite (Earth-to-space)  | e Signal-Satellite   |
| 25.5-27  | FIXED MOBILE INTER-SATELLITE 881A Earth Exploration-Satellite (space-to-Earth) Standard Frequency and Time Signal-Satellite (Earth-to-space) | aace-to-Earth)<br>e Signal-Satellite                                       |
| 27-27.5<br>FIXED<br>MOBILE<br>INTER-SATELLITE 881A | 27-27.5<br>FIXED<br>FIXED<br>FIXED<br>MOBILE<br>INTER-SATELLITE 881A 881B  | o-space)<br>881B   |
| 27.5-28.5  |  | space) 882D  |
|  | 882A 882B  |  |
| 28.5-29.5  | FIXED<br>FIXED-SATELLITE (Earth-to-space) 882D<br>MOBILE<br>Earth Exploration-Satellite (Earth-to-space)                                     | space) 882D<br>arth-to-space) 882C   |
|  | 882B   |  |

| 24.45-24.65 | INTER-SATELLITE 882E<br>RADIONAVIGATION  |
|-------------|--|
| 24.65.24.75 | INTER-SATELLITE<br>RADIOLOCATION-SATELLITE (Earth-to-space)  |
| 24.75-25.25 | FIXED-SATELLITE (Earth-to-space) 882G C44 C47  |
| 25.25-27    | FIXED INTER-SATELLITE 881A MOBILE Earth Exploration-Satellite (space-to-Earth) Standard Frequency and Time Signal-Satellite (Earth-to-space) |
| 27-27.5     | FIXED<br>FIXED-SATELLITE (Earth to space)<br>INTER-SATELLITE 881A 881B<br>MOBILE   |
| 27.5-29.5   | FIXED-SATELLITE (Earth-to-space) C48 MOBILE 882A 882B  |

| N 2 REGION 3 | 29.5-29.9 FIXED-SATELLITE (Earth-to-space) Mobile-Satellite (Earth-to-space) Earth Exploration- (Earth-to-space)                    | 873C<br>883 882B 883           | FIXED-SATELLITE (Earth-to-space) 882D<br>MOBILE-SATELLITE (Earth-to-space)<br>Earth Exploration-Satellite (Earth-to-space) 882C | 873C 882 882A 882B 883 | FIXED-SATELLITE (Earth-to-space) MOBILE-SATELLITE (Earth-to-space) Standard Frequency and Time Signal-Satellite (space-to-Earth) |     | FIXED<br>MOBILE<br>Standard Frequency and Time Signal-Satellite<br>(space-to-Earth)<br>Space Research 884 |         | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) |     | 31.5-31.8 EARTH EXPLORATION- SSIVE) SATELLITE (passive) OMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile      | 888     | RADIONAVIGATION<br>SPACE RESEARCH (deep space) (space-to-Earth) |
|--------------|---|--------------------------------|---|------------------------|--|-----|---|---------|--|-----|---|---------|---|
| REGION       | 29.5-29.9 FIXED-SATELLITE (Earth-to-space) 882D MOBILE-SATELLITE (Earth-to-space) Earth Exploration-Satellite (Earth-to-space) 882C | 873A 873B 873<br>873E 882B 883 | FIXED-SATELLITI<br>MOBILE-SATELLI<br>Earth Exploration  | 873A 873B 87           | FIXED-SATELLITE<br>MOBILE-SATELLI<br>Standard Frequen<br>(space-to-Earth)  | 883 | FIXED<br>MOBILE<br>Standard Frequen<br>(space-to-Earth)<br>Space Research                                 | 885 886 | EARTH EXPLORATION-SATE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)                | 887 | 31.5-31.8 EARTH EXPLORATION- SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)   | 888     | RADIONAVIGATION SPACE RESEARC                                   |
| REGION 1     | 29.5-29.9 FIXED-SATELLITE (Earth-to-space) 882D Mobile-Satellite (Earth-to-space) Earth Exploration-Satellite (Earth-to-space) 882C | 882B 883                       | 29.9.30   |                        | 30-31  |     | 31-31.3   |         | 31.3-31.5  |     | 31.5-31.8 EARTH EXPLORATION- SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (yassive) Fixed Mobile except aeronautical mobile | 888 889 | 31.8.32   |

| 29.5-30   | FIXED-SATELLITE (Earth-to-space) 882D<br>MOBILE-SATELLITE (Earth-to-space)   |
|-----------|--|
|           | 873A 873B 873C 873E 882 882A 882B  |
| 30.31     | FIXED-SATELLITE (Earth-to-space) C49 MOBILE-SATELLITE (Earth-to-space) C50 Standard Frequency and Time Signal-Satellite (space-to-Earth) |
| 31-31.3   | FIXED MOBILE Standard Frequency and Time Signal-Satellite (space-to-Earth) Space Research 884 886  |
| 31,3-31.8 | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)   |
|           | 27<br>28.8   |
| 31.8-32   | = 0  |
|           | 893  |

### Canadian Table of Frequency Allocations

ITU ALLOCATION TO SERVICES

| 30-30 3   |  |
|-----------|--|
|           | INTER-SATELLITE<br>RADIONAVIGATION<br>SPACE RESEARCH (deep space) (space-to-Earth) |
|           | 892 893  |
| 32.3-33   | INTER-SATELLITE<br>RADIONAVIGATION   |
|           | 892 893  |
| 33-33.4   | RADIONAVIGATION  |
|           | 892  |
| 33.4-34.2 | RADIOLOCATION  |
|           | 892 894  |
| 34.2-34.7 | RADIOLOCATION<br>SPACE RESEARCH (deep space) (Earth-to-space)                      |
|           | 894  |
| 34.7-35.2 | RADIOLOCATION<br>Space Research 896  |
|           | 894  |
| 35.2-36   |  |
| 36-37     | EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)        |
|           | 868  |
| 37-37.5   | FIXED<br>MOBILE<br>SPACE RESEARCH (space-to-Earth)                                 |

| INTER-SATELLITE RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 893 | INTER-SATELLITE<br>RADIONAVIGATION<br>893 | RADIONAVIGATION | RADIOLOCATION | RADIOLOCATION<br>SPACE RESEARCH (deep space) (Earth-to-space) | RADIOLOCATION<br>Space Research | METEOROLOGICAL AIDS<br>RADIOLOCATION<br>897 | EARTH EXPLORATION-SATELLITE (passive) HIXED MOBILE SPACE RESEARCH (passive) 898 | FIXED<br>MOBILE<br>SPACE RESEARCH (space-to-Earth) |
|--|---|-----------------|---------------|---|---------------------------------|---|---|--|
| 0.75.75  | 32.3-33                                   | 33-33.4         | 33.4-34.2     | 34.2-34.7   | 34.7-35.2                       | 35.2-36                                     | 36-37   | 37-37.5  |

## CANADIAN ALLOCATION TABLE

ITU ALLOCATION TO SERVICES

| REGION 2 REGION 3 | FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (space-to-Earth) Earth Exploration-Satellite (space-to-Earth) | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>Earth Exploration-Satellite (space-to-Earth) | FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite (space-to-Earth)         | FIXED MOBILE MOBILE MOBILE-SATELLITE (space-to-Earth) EARTH EXPLORATION-SATELLITE (Earth-to-space) SPACE RESEACH (Earth-to-space) Earth Exploration-Satellite (space-to-Earth)      | BROADCASTING-SATELLITE<br>/BROADCASTING/<br>Fixed<br>Mobile | FIXED FIXED-SATELLITE (Earth-to-space) 901 MOBILE except aeronautical mobile RADIO ASTRONOMY 900 | MOBILE 902<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>903 | AMATEUR-SATELLITE            |
|-------------------|--|---|--|---|---|--|---|------------------------------|
| REGION 1          | 37.5-38  | 38.39.5   | 39.5-40  | 40.40.5   | 40.5-42.5   | 42.5-43.5  | 43.5-47   | 47.47.2                      |
|                   | FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (space-to-Earth) Earth Exploration Satellite (space-to-Earth) | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>Earth Exploration-Satellite (space-to-Earth) | FIXED FIXED-SATELLITE (space-to-Earth) C49 MOBILE MOBILE-SATELLITE (space-to-Earth) C50 Earth Exploration-Satellite (space-to-Earth) | EARTH EXPLORATION-SATELLITE (Earth-to-space) FIXED RIXED MOBILE MOBILE:-SATELLITE (space-to-Earth) C50 SPACE RESEARCH (Earth-to-space) Earth Exploration-Satellite (space-to-Earth) | BROADCASTING-SATELLITE<br>/BROADCASTING/<br>Fixed<br>Mobile | FIXED FIXED-SATELLITE (Earth-to-space) 901 MOBILE except aeronautical mobile RADIO ASTRONOMY     | MOBILE 902<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>903 | AMATEUR<br>AMATEUR:SATELLITE |

40.5-42.5

40-40.5

38-39.5

37.5-38

39.5-40

42.5-43.5

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| REGION 1   | REGION 2  | REGION 3 |
|------------|---|----------|
| 47.2-50.2  | (Earth-to-space)  | 901      |
| 50.2-50.4  | EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>MOBILE<br>SPACE RESEARCH (passive)                | passive) |
| 50.4-51.4  | FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>Mobile-Satellite (Earth-to-space)            |          |
| 51.4-54.25 | EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br>906 907                        | passive) |
| 54.25-58.2 | EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE 909 SPACE RESEARCH (passive) 908 | oassive) |
| 58.2-59    | EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906 907                              | passive) |
| 59-64      | FIXED INTER-SATELLITE MOBILE 909 RADIOLOCATION 910  |          |
| 64-65      | EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906 907                              | passive) |
| 65-66      | EARTH EXPLORATION-SATELLITE<br>SPACE RESEARCH<br>Fixed<br>Mobile                                    |          |

|            | FIXED<br>FIXED-SATELLITE (Earth-to-space) 901<br>MOBILE 905                              |
|------------|--|
|            | 904  |
| 50.2-50.4  | EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)              |
| 50.4-51.4  | FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>Mobile-Satellite (Earth-to-space) |
| 51.4-54.25 | EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906 907                   |
| 54.25-58.2 |  |
| 58.2-59    | EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906 907                   |
| 59-64      |  |
| 64-65      | EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 906-907                   |
| 65-66      | EARTH EXPLORATION-SATELLITE<br>SPACE RESEARCH<br>Fixed<br>Mobile                         |

| 12000   | 2000  | BEGION 3                    |
|---------|---|-----------------------------|
| 66-71   |   |                             |
| 71-74   | FIXED FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) 906                             | (ace)                       |
| 74.75.5 | FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>Space Research (space-to-Earth)                          | vace)                       |
| 75.5-76 | AMATEUR<br>AMATEUR-SATELLITE<br>Space Research (space-to-Earth)   | rh)                         |
| 76-81   | RADIOLOCATION Amateur Amateur-Satellite Space Research (space-to-Earth)   | rth)                        |
| 81-84   | FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth) Space Research (space-to-Earth) | Earth)<br>o-Earth)<br>rrth) |
| 84-86   | FIXED MOBILE BROADCASTING BROADCASTING-SATELLITE 913  |                             |
| 86-92   | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)                                  | ELLITE (passive)            |

|       | MOBILE 902<br>MOBILE SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE | FIXED FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) 906 | FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>Space Research (space-to-Earth) | AMATEUR<br>AMATEUR-SATELLITE<br>Space Research (space-to-Earth) | RADIOLOCATION Amateur Amateur-Satellite Space Research (space-to-Earth) | FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth) Space Research (space-to-Earth) | BROADCASTING<br>BROADCASTING-SATELLITE<br>FIXED<br>MOBILE<br>913 | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) |
|-------|--|---|--|---|---|---|--|--|
| 11.00 | 7-00   | 71-74   | 74-75.5  | 75.5-76   | 76-81   | 81-84   | 84-86  | 86-92  |

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| FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIOLOCATION 914  MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION-SATELLITE RADIONAVIGATION-SATELLITE RADIONAVIGATION-SATELLITE RADIONAVIGATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 722 FIXED FIX |
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| REGION 3 | .h-to-space)  | АТЕЦЦТЕ   | -SATELLITE (passive)  | ce-to-Earth)                                | -SATELLITE (passive)   | -SATELLITE (passive)  |  | ATELLITE  |
|----------|---|---|---|---|--|---|--|---|
| REGION 2 | FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIOLOCATION 914 | MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE Radiolocation | EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) | FIXED-SATELLITE (space-to-Earth) MOBILE 722 | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 722 907 | EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE 909 SPACE RESEARCH (passive) 722 915 916 | FIXED INTER-SATELLITE MOBILE 909 RADIOLOCATION 910 | MOBILE 902<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>Radiolocation |
| REGION 1 | 92-95   | 95-100  | 100-102   | 102-105                                     | 105-116  | 116-126   | 126-134  | 134-142   |

| REGION 1 | REGION 2 REGION 3  |
|----------|--|
| 142-144  | AMATEUR<br>AMATEUR-SATELUTE  |
| 144-149  | RADIOLOCATION<br>Amateur<br>Amateur-Satellite<br>918   |
| 149-150  | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE  |
| 150-151  | EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive) 919 |
| 151-156  | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE  |
| 156-158  | FIXED FIXED-SATELLITE (space-to-Earth) MOBILE EARTH EXPLORATION-SATELLITE (passive)                              |
| 158-164  | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE  |
| 164-168  | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)                             |
| 168-170  | FIXED MOBILE   |

| 142.144 | AMATEUR-SATELLITE  |
|---------|--|
| 144.149 | RADIOLOCATION<br>Amateur<br>Amateur-Satellite<br>918   |
| 149-150 | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE  |
| 150-151 | EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive) |
| 151-156 | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE  |
| 156-158 | FIXED<br>FIXED SATELLITE (space-to-Earth)<br>MOBILE<br>EARTH EXPLORATION-SATELLITE (passive)                 |
| 158-164 | FIXED<br>FIXED-SATELLITE (space-to-Farth)<br>MOBILE  |
| 164 168 | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)                         |
| 168-170 | FIXED<br>MOBILE  |
|         |  |

REGION 3

REGION 2

REGION 1

170-174.5

FIXED INTER-SATELLITE MOBILE 909

919

174.5-176.5

EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE 909 SPACE RESEARCH (passive)

EARTH EXPLORATION-SATELLITE (passive)
RADIO ASTRONOMY
SPACE RESEARCH (passive)

FIXED INTER-SATELLITE MOBILE 909

920 921

185-190

FIXED INTER-SATELLITE MOBILE 909

919

176.5-182

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182-185

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| 6.4  | FIXED<br>INTER-SATELLITE<br>MOBILE 909  |   |
|--|---|---|
|  | 919   |   |
| 174.5-176.5  | EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE 909 SPACE RESEARCH (passive) |   |
|  | 919   |   |
| 176.5-182  | FIXED<br>INTER-SATELLITE<br>MOBILE 909  |   |
|  | 919   |   |
| 182-185  | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)                  |   |
|  | 921   |   |
| 185-190  | FIXED INTER-SATELLITE MOBILE 909  |   |
|  | 919   | Ţ |
| 190-200  | MOBILE 902<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE                  |   |
|  | 722 903   |   |
| 200-202  | EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 722                 |   |
| 202-217  | FIXED<br>FIXED-SATELLITE (Earth-to-space)   | Y |
|  | MOBILE<br>722   |   |
| 100 710  |   |   |
| - 07-  | EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)                  |   |
|  | 722 907   |   |
| The second secon |   | 1 |

EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE

SPACE RESEARCH (passive)

722

202-217

MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE

190-200

722 903

200-202

EARTH EXPLORATION-SATELLITE (passive)
RADIO ASTRONOMY
SPACE RESEARCH (passive)

722 907

FIXED FIXED-SATELLITE (Earth-to-space) MOBILE

722

217-231

|   | SERVICES |
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CANADIAN ALLOCATION TABLE

ITU ALLOCATION TO SERVICES

| REGION 1 | REGION 2   | REGION 3       |
|----------|--|----------------|
| 231-235  | FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation  | arth)          |
| 235-238  | EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive) | LITE (passive) |
| 238-241  | FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation  | rth)           |
| 241-248  | RADIOLOCATION<br>Amateur<br>Amateur-Satellite<br>922   |                |
| 248-250  | AMATEUR<br>AMATEUR-SATELLITE   |                |
| 250-252  | EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 923   | JTE (passive)  |
| 252-265  | MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE  | ш              |
| 265-275  | D<br>D-SATELLIT<br>IILE<br>IO ASTRON   | (20)           |
| 275-400  | (not allocated)  |                |
|          | 927  |                |

| 231-235 | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>Radiolocation   |
|---------|--|
| 235-238 | EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive) |
| 238-241 | FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>Radiolocation   |
| 241-248 | RADIOLOCATION<br>Amateur<br>Amateur-Satellite<br>922   |
| .48-250 | AMATEUR<br>AMATEUR-SATELLITE   |
| 550-252 | EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) C23 C24                                       |
| 152-265 | MOBILE 902 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 903 923 924 C23                        |
| 65-275  | FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br>926                                |
| 75-400  | (not allocated)  |
|         |  |





#### INTERNATIONAL FOOTNOTES

The following is a current listing of all footnotes contained in Section IV of the International Tables of Frequency Allocations. It should be noted that some of the international footnotes applicable to Canada have been suppressed in the Canadian Table of Frequency Allocations in favour of a specific Canadian footnote that incorporates the ITU provisions and responds to specific Canadian spectrum requirements. In addition, other Canadian footnotes have been developed to respond to such domestic requirements.

The symbols Mob-87, HFBC-87, ORB-88 and WARC-92 indicate an addition, modification or deletion of a Provision, Appendix, Resolution or Recommendation by the World Administrative Radio Conference for the Mobile Services, the World Administrative Radio Conference for the Planning of the HF Bands Allocated to the Broadcasting Service, Geneva, 1987, the World Administrative Radio Conference on the use of the Geostationary-Satellite Orbit and the Planning of Space Services utilizing it, Geneva, 1988, and the World Administrative Radio Conference, Malaga-Torremolinos, 1992. In the case of a deletion, the symbol SUP is also used.

- Administrations authorizing the use of frequencies below 9 kHz shall ensure that no harmful interference is caused thereby to the services to which the bands above 9 kHz are allocated (see No. 1816).
- Administrations conducting scientific research using frequencies below 9 kHz are urged to advise other administrations that may be concerned in order that such research may be afforded all practicable protection from harmful interference.
- (WARC-92) Additional allocation: in Bulgaria, Czechoslovakia, the German Democratic Republic and the U.S.S.R., the band 14 17 kHz is also allocated to the radionavigation service on a permitted basis.
- (WARC-92) The stations of services to which the bands 14 19.95 kHz and 20.05 70 kHz and in Region 1 also the bands 72 84 kHz and 86 90 kHz are allocated may transmit standard frequency and time signals. Such stations shall be afforded protection from harmful interference. In Bulgaria, Czechoslovakia, Mongolia and the U.S.S.R., the frequencies 25 kHz and 50 kHz will be used for this purpose under the same conditions.
- (Mob-87) The use of the bands 14 19.95 kHz, 20.05 70 kHz, 70 90 kHz (72 84 kHz and 86 90 kHz in Region 1) by the maritime mobile service is limited to coast radiotelegraph stations (A1A and F1B only). Exceptionally, the use of class J2B or J7B emissions is authorized subject to the necessary bandwidth not exceeding that normally used for class A1A or F1B emissions in the bands concerned.
- (WARC-92) Additional allocation: in Bulgaria, Czechoslovakia, the German Democratic Republic, Poland and the U.S.S.R., the band 67 70 kHz is also allocated to the radionavigation service on a permitted basis.
- 450 Different category of service: in Bangladesh, Iran and Pakistan, the allocation of the bands 70 72 kHz and 84 86 kHz to the fixed and maritime mobile service is on a primary basis (see No. 425).

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- (Mob-87) In the bands 70 90 kHz (70 86 kHz in Region 1) and 110 130 kHz (112 130 kHz in Region 1), pulsed radionavigation systems may be used on condition that they do not cause harmful interference to other services to which these bands are allocated.
- In Region 2, the establishment and operation of stations in the maritime radionavigation service in the bands 70 90 kHz and 110 130 kHz shall be subject to agreement obtained under the procedure set forth in Article 14 with administrations whose services, operating in accordance with the Table, may be affected. However, stations of the fixed, maritime mobile and radiolocation services shall not cause harmful interference to stations in the maritime radionavigation service established under such agreements.
- Administrations which operate stations in the radionavigation service in the band 90 110 kHz are urged to coordinate technical and operating characteristics in such a way as to avoid harmful interference to the services provided by these stations.
- 453A (Mob-87) In the band 90 110 kHz, the United Kingdom may continue to use its coast radiotelegraph stations in operation on 14 September 1987 on a secondary basis.
- Only classes A1A or F1B, A2C, A3C, F1C or F3C emissions are authorized for stations of the fixed service in the bands allocated to this service between 90 kHz and 160 kHz (148.5 kHz in Region 1) and for stations of the maritime mobile service in the bands allocated to this service between 110 kHz and 160 kHz (148.5 kHz in Region 1). Exceptionally, class J2B or J7B emissions are also authorized in the bands between 110 kHz and 160 kHz (148.5 kHz in Region 1) for stations of the maritime mobile service.
- Different category of service: in Bangladesh, Iran and Pakistan, the allocation of the bands 112 - 117.6 kHz and 126 - 129 kHz to the fixed and maritime mobile services is on a primary basis (see No. 425).
- Different category of service: in the Federal Republic of Germany, the allocation of the band 115 117.6 kHz to the fixed and maritime mobile services is on a primary basis (see No. 425) and to the radionavigation service on a secondary basis (see No. 424).
- (WARC-92) Additional allocation: in Bulgaria, Czechoslovakia, the German Democratic Republic, Mongolia, Poland, Romania and the U.S.S.R., the band 130 148.5 kHz is also allocated to the radionavigation service on a secondary basis. Within and between these countries, this service shall have an equal right to operate.
- 458<sup>1</sup> SUP (Mob-87)
- In the Region 2 polar areas (north of 60° N and south of 60° S), which are subject to auroral disturbances, the aeronautical fixed service is the primary service in the band 160 190 kHz.

<sup>1.</sup> Note by the Secretary-General: This note has been renumbered 464A, to preserve the chronological order.

- 460 Alternative allocation: in Angola, Botswana, Burundi, Congo, Malawi, Rwanda, South Africa and Zaire, the band 160 200 kHz is allocated to the fixed service on a primary basis.
- Additional allocation: in Somalia, the band 200 255 kHz is also allocated to the aeronautical radionavigation service on a primary basis.
- Alternative allocation: in Angola, Botswana, Burundi, Cameroon, Central African Republic, Chad, Congo, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Oman, Rwanda, South Africa, Swaziland, Tanzania, Zaire, Zambia and Zimbabwe, the band 200 283.5 kHz is allocated to the aeronautical radionavigation service on a primary basis.
- 463 Different category of service: in Sudan and Yemen (P.D.R. of), the allocation of the band 255 283.5 kHz to the aeronautical radionavigation service is on a primary basis (see No. 425).
- 464 Alternative allocation: in Tunisia, the band 255 283.5 kHz is allocated to the broadcasting service on a primary basis.
- 464A SUP (WARC-92)
- Norwegian stations of the fixed service situated in northern areas (north of 60° N) subject to auroral disturbances are allowed to continue operation on four frequencies in the bands 283.5 490 kHz and 510 526.5 kHz.
- In the band 285 325 kHz (283.5 325 kHz in Region 1), in the maritime radionavigation service, radiobeacon stations may also transmit supplementary navigational information, using narrow-band techniques, on condition that the prime function of the beacon is not significantly degraded.
- 466A (MOB-87) *Additional allocation:* in Region 1, the frequency band 285.3 285.7 kHz is also allocated to the maritime radionavigation service (other than radiobeacons) on a permitted basis.
- 467 Different category of service: in the U.S.S.R. and the Black Sea areas of Bulgaria, Romania and Turkey, the allocation of the band 315 325 kHz to the maritime radionavigation service is on a primary basis (see No. 425), under the following conditions:
  - a) in the Black Sea and White Sea areas, the maritime radionavigation service is the primary service and the aeronautical radionavigation service is the permitted service;
  - in the Baltic Sea area, the assignment of frequencies in this band to new stations in the maritime or aeronautical radionavigation services shall be subject to prior consultation between the administrations concerned.

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- The frequency 410 kHz is designated for radio direction-finding in the maritime radionavigation service.

  The other radionavigation services to which the band 405 415 kHz is allocated shall not cause harmful interference to radio direction-finding in the band 406.5 413.5 kHz.
- (Mob-87) Different category of service: in Afghanistan, Australia, China, the French Overseas Territories of Region 3, India, Indonesia, the Islamic Republic of Iran, Japan, Pakistan, Papua New Guinea and Sri Lanka, the allocation of the band 415 495 kHz to the aeronautical radionavigation service is on a permitted basis. Administrations in these countries shall take all practical steps necessary to ensure aeronautical radionavigation stations in the band 435 495 kHz do not cause interference to reception by coast stations of ship stations transmitting on frequencies designated for ship stations on a worldwide basis (see No. 4237).
- 469A (Mob-87) *Different category of service:* in Cuba, Mexico and the United States of America, the allocation of the band 415 435 kHz to the aeronautical radionavigation service is on a primary basis.
- 470 The use of the bands 415 495 kHz and 505 526.5 kHz (505 510 kHz in Region 2) by the maritime mobile service is limited to radiotelegraphy.
- 470A (Mob-87) In Region 2, the use of the band 435 495 kHz by the aeronautical radionavigation service is limited to non-directional beacons not employing voice transmissions.
- 471 (Mob-87) The bands 490 495 kHz and 505 510 kHz shall be subject to the provisions of No. **3018** until the entry into force of the reduced guardband, in accordance with Resolution No. **210** (Mob-87).
- 472 (Mob-87) The frequency 500 kHz is an international distress and calling frequency for Morse radiotelegraphy. The conditions for its use are prescribed in Articles 37, 38, N 38 and 60.
- (Mob-87) In the maritime mobile service, the frequency 490 kHz is, from the date of full implementation of the GMDSS (see Resolution 331 (Mob-87)), to be used exclusively for the transmission by coast stations of navigational and meteorological warnings and urgent information to ships, by means of narrow-band direct-printing telegraphy. The conditions for the use of this frequency are prescribed in Articles N 38 and 60, and Resolution 329 (Mob-87). In using the band 415 495 kHz for the aeronautical radionavigation service, administrations are requested to ensure that no harmful interference is caused to the frequency 490 kHz.
- 473 SUP (Mob-87)
- (Mob-87) The conditions for the use of the frequency 518 kHz by the maritime mobile service are prescribed in Articles 38, N 38 and 60 (see Resolution No. 324 (Mob-87) and Article 14A).
- 475 (WARC-92) SUP

- 476 Additional allocation: in the United Kingdom, the band 519.5 526.5 kHz is also allocated to the broadcasting service on a secondary basis for the transmission of public utility information.
- In Region 2, in the band 525 535 kHz, the carrier power of broadcasting stations shall not exceed 1 kW during the day and 250 W at night.
- 478 Additional allocation: in Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the band 526.5 535 kHz is also allocated to the mobile service on a secondary basis.
- 479 Additional allocation: in China, the band 526.5 535 kHz is also allocated to the aeronautical radionavigation service on a secondary basis.
- 480 (ORB-88) In Region 2, the use of the band 1 605 1 705 kHz by stations of the broadcasting service is subject to the Plan established by the Regional Administrative Radio Conference (Rio de Janeiro, 1988).
  - In Region 2, in the band 1 625 1 705 kHz, the relationship between the broadcasting, fixed and mobile services is shown in No. 419. However, the examination of frequency assignments to stations of the fixed and mobile services in the band 1 625 1 705 kHz under No. 1241 shall take account of the allotments appearing in the Plan established by the Regional Administrative Radio Conference (Rio de Janeiro, 1988).
- 480A (Mob-87) In the band 1 605 1 705 kHz, in cases where a broadcasting station of Region 2 is concerned, the service area of the maritime mobile stations in Region 1 shall be limited to that provided by ground-wave propagation.
- 481 (WARC-92) SUP
- Additional allocation: in Australia, Indonesia, New Zealand, the Philippines, Singapore, Sri Lanka and Thailand, the band 1 606.5 1 705 kHz is also allocated to the broadcasting service on a secondary basis.
- Different category of service: in Bulgaria, Chad, Czechoslovakia, the German Democratic Republic, Hungary, Mongolia, Nigeria, Poland and the U.S.S.R., the allocation of the bands 1 606.5 1625 kHz, 1 635 1 800 kHz and 2 107 2 160 kHz to the fixed and land mobile services is on a primary basis (see No. 425).
- Some countries of Region 1 use radiodetermination systems in the bands 1 606.5 1 625 kHz, 1 635 1 800 kHz, 1 850 2 160 kHz, 2 194 2 300 kHz, 2 502 2 850 kHz and 3 500 3 800 kHz. The establishment and operation of such systems are subject to agreement obtained under the procedure set forth in Article 14. The radiated mean power of these stations shall not exceed 50 W.

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- Additional allocation: in Angola, Bulgaria, Chad, Czechoslovakia, the German Democratic Republic, Hungary, Mongolia, Nigeria, Poland and the U.S.S.R., the bands 1 625 1 635 kHz, 1 800 1 810 kHz and 2 160 2 170 kHz are also allocated to the fixed and land mobile services on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.
- In Region 1, in the bands 1 625 1 635 kHz, 1 800 1 810 kHz and 2 160 2 170 kHz (except in the countries listed in No. 485 and those listed in No. 499 for the band 2 160 2 170 kHz), existing stations in the fixed and mobile, except aeronautical mobile, services (and stations of the aeronautical mobile (OR) service in the band 2 160 2 170 kHz) may continue to operate on a primary basis until satisfactory replacement assignments have been found and implemented in accordance with Resolution 38.
- In Region 1, the establishment and operation of stations of the radiolocation service in the bands 1 625 1 635 kHz, 1 800 1 810 kHz and 2 160 2 170 kHz shall be subject to agreement obtained under the procedure set forth in Article 14 (see also No. 486). The radiated mean power of radiolocation stations shall not exceed 50 W. Pulse systems are prohibited.
- In Czechoslovakia, Denmark, the Federal Republic of Germany, Finland, the German Democratic Republic, Hungary, Ireland, Israel, Jordan, Malta, Norway, Poland, Sweden, the United Kingdom and the U.S.S.R., administrations may allocate up to 200 kHz to their amateur service in the bands 1 715 1 800 kHz and 1 850 2 000 kHz. However, when allocating the bands within this range to their amateur service, administrations shall, after prior consultation with administrations of neighbouring countries, take such steps as may be necessary to prevent harmful interference from their amateur service to the fixed and mobile services of other countries. The mean power of any amateur station shall not exceed 10 W.
- (Mob-87) In Region 3, the LORAN system operates either on 1 850 kHz or 1 950 kHz, the bands occupied being 1 825 1 875 kHz and 1 925 1 975 kHz, respectively. Other services to which the band 1 800 2 000 kHz is allocated may use any frequency therein on condition that no harmful interference is caused to the LORAN system operating on 1 850 kHz or 1 950 kHz.
- Alternative allocation: in Angola, Austria, Belgium, Bulgaria, Cameroon, Congo, Denmark, Egypt, Ethiopia, the Federal Republic of Germany, France, the German Democratic Republic, Greece, Italy, Lebanon, Luxembourg, Malawi, the Netherlands, Portugal, Syria, Somalia, Spain, Tanzania, Tunisia, Turkey and the U.S.S.R, the band 1 810 1 830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
- Additional allocation: in Chad, Czechoslovakia, Iraq, Israel, Libya, Poland, Romania, Saudi Arabia, Togo and Yugoslavia, the band 1 810 1 830 kHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

- In Region 1, the use of the band 1 810 1 850 kHz by the amateur service is subject to the condition that satisfactory replacement assignments have been found and implemented in accordance with Resolution 38, for frequencies to all existing stations of the fixed and mobile, except aeronautical mobile, services operating in this band (except for the stations of the countries listed in Nos. 490, 491 and 493). On completion of satisfactory transfer, the authorization to use the band 1 810 1 830 kHz by the amateur service in countries situated totally or partially north of 40° N shall be given only after consultation with the countries mentioned in Nos. 490 and 491 to define the necessary steps to be taken to prevent harmful interference between amateur stations and stations of other services operating in accordance with Nos. 490 and 491.
- 493 Alternative allocation: in Burundi and Lesotho, the band 1 810 1 850 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
- 494 Alternative allocation: in Argentina, Bolivia, Chile, Mexico, Paraguay, Peru, Uruguay and Venezuela, the band 1 850 2 000 kHz is allocated to the fixed mobile, except aeronautical mobile, radiolocation and radionavigation services on a primary basis.
- In Region 1, in making assignments to stations in the fixed and mobile services in the bands

  1 850 2 045 kHz, 2 194 2 498 kHz, 2 502 2 625 kHz and 2 650 2850 kHz, administrations should bear in mind the special requirements of the maritime mobile service.
- In Region 1, the use of the band 2 025 2 045 kHz by the meteorological aids service is limited to oceanographic buoy stations.
- (Mob-87) In Region 2, except in Greenland, coast stations and ship stations using radiotelephony in the band 2 065 2 107 kHz shall be limited to class R3E or J3E emissions and to peak envelope power not exceeding 1 kW. Preferably, the following carrier frequencies should be used: 2 065.0 kHz, 2 079.0 kHz, 2 082.5 kHz, 2 086.0 kHz, 2 093.0 kHz, 2 096.5 kHz, 2 100.0 kHz and 2 103.5 kHz. In Argentina, Brazil and Uruguay, the carrier frequencies 2 068.5 kHz and 2 075.5 kHz are also used for this purpose, while the frequencies within the band 2 072 2 075.5 kHz are used as provided in No. **4323 BD**.
- In Regions 2 and 3, provided no harmful interference is caused to the maritime mobile service, the frequencies between 2 065 kHz and 2 107 kHz may be used by stations of the fixed service communicating only within national borders and whose mean power does not exceed 50 W. In notifying the frequencies, the attention of the International Frequency Registration Board should be drawn to these provisions.
- Additional allocation: in Botswana, Ethiopia, Iraq, Lesotho, Libya, Malawi, Saudi Arabia, Somalia, Swaziland and Zambia, the band 2 160 2 170 kHz is also allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis. The mean power of stations in these services shall not exceed 50 W.

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- 500 (Mob-87) The carrier frequency 2 182 kHz is an international distress and calling frequency for radiotelephony. The conditions for the use of the band 2 173.5 2 190.5 kHz are prescribed in Articles 37, 38, N 38 and 60.
- 500A (Mob-87) The frequencies 2 187.5 kHz, 4 207.5 kHz, 6 312 kHz, 8 414.5 kHz, 12 577 kHz and 16 804.5 kHz are international distress frequencies for digital selective calling. The conditions for the use of these frequencies are prescribed in Article **N 38**.
- 500B (Mob-87) The frequencies 2 174.5 kHz, 4 177.5 kHz, 6 268 kHz, 8 376.5 kHz, 12 520 kHz and 16 695 kHz are international distress frequencies for narrow-band direct-printing telegraphy. The conditions for the use of these frequencies are prescribed in Article **N 38**.
- (Mob-87) The carrier frequencies 2 182 kHz, 3 023 kHz, 5 680 kHz, 8 364 kHz and the frequencies 121.5 MHz, 156.8 MHz and 243 MHz may also be used, in accordance with the procedures in force for terrestrial radiocommunication services, for search and rescue operations concerning manned space vehicles. The conditions for the use of the frequencies are prescribed in Articles 38 and N 38.
  - The same applies to the frequencies 10 003 kHz, 14 993 kHz and 19 993 kHz, but in each of these cases emissions must be confined in a band of  $\pm$  3 kHz about the frequency.
- Alternative allocation: in Belgium, Cyprus, Denmark, France, Greece, Iceland, Italy, Malta, the Netherlands, Norway, Portugal, Singapore, Spain, Sri Lanka, Sweden, Turkey, the United Kingdom and Yugoslavia, the band 2 194 2 300 kHz is allocated to the maritime mobile service on a primary basis and to the fixed and land mobile services on a permitted basis.
- 503 For the conditions for the use of the bands 2 300 2 495 kHz (2 498 kHz in Region 1), 3 200 3 400 kHz, 4 750 4 995 kHz and 5 005 5 060 kHz by the broadcasting service, see Nos. **406** to **410**, **411** and **2666** to **2673**.
- Alternative allocation: in Belgium, Cyprus, Denmark, France, Greece, Iraq, Italy, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Turkey, the United Kingdom and Yugoslavia, the band 2 502 2 625 kHz is allocated to the maritime mobile service on a primary basis and to the fixed and land mobile services on a permitted basis.
- (Mob-87) The carrier (reference) frequencies 3 023 kHz and 5 680 kHz may also be used, in accordance with Articles 38 and N 38, by stations of the maritime mobile service engaged in coordinated search and rescue operations.

- Administrations are urged to authorize the use of the band 3 155 3 195 kHz to provide a common worldwide channel for low-power wireless hearing aids. Additional channels for these devices may be assigned by administrations in the bands between 3 155 kHz and 3 400 kHz to suit local needs.
  - It should be noted that frequencies in the range 3 000 kHz to 4 000 kHz are suitable for hearing aid devices which are designed to operate over short distances within the induction field.
- Alternative allocation: in Belgium, Cameroon, Côte d'Ivoire, Cyprus, Denmark, Egypt, France, Greece, Iceland, Italy, Liberia, Malta, the Netherlands, Norway, Singapore, Spain, Sri Lanka, Sweden, Togo, Turkey, the United Kingdom and Yugoslavia, the band 3 155 3 200 kHz is allocated to the maritime mobile service on a primary basis and to the fixed and land mobile services on a permitted basis.
- Additional allocation: in Australia, Brazil, Canada, Japan, Mexico, New Zealand, Peru, United States and Uruguay, the band 3 230 3 400 kHz is also allocated to the radiolocation service on a secondary basis.
- Additional allocation: in Honduras, Mexico, Peru and Venezuela, the band 3 500 3 750 kHz is also allocated to the fixed and mobile services on a primary basis.
- For the use of the bands allocated to the amateur service at 3.5 MHz, 7.0 MHz, 10.1 MHz, 14.0 MHz, 18.068 MHz, 21.0 MHz, 24.89 MHz and 144 MHz in the event of natural disasters, see Resolution 640.
- Additional allocation: in Brazil, the band 3 700 4 000 kHz is also allocated to the radiolocation service on a primary basis.
- Alternative allocation: in Argentina, Bolivia, Chile, Ecuador, Paraguay, Peru and Uruguay, the band 3 750 4 000 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
- Alternative allocation: in Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the band 3 900 3 950 kHz is allocated to the broadcasting service on a primary basis. The use of this band by the broadcasting service is subject to agreement obtained under the procedure set forth in Article 14, with neighbouring countries having services operating in accordance with the Table.
- Additional allocation: in Canada, the band 3 950 4 000 kHz is also allocated to the broadcasting service on a primary basis. The power of broadcasting stations operating in this band shall not exceed that necessary for a national service within the frontier of this country and shall not cause harmful interference to other services operating in accordance with the Table.
- Additional allocation: in Greenland, the band 3 950 4 000 kHz is also allocated to the broadcasting service on a primary basis. The power of the broadcasting stations operating in this band shall not exceed that necessary for a national service and shall in no case exceed 5 kW.

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- In Region 3, the stations of those services to which the band 3 995 4 005 kHz is allocated may transmit standard frequency and time signals.
- 517 (Mob-87) The use of the band 4 000 4 063 kHz by the maritime mobile service is limited to ship stations using radiotelephony (see No. **4374** and Appendix **16**).
- (WARC-92) In Afghanistan, Argentina, Australia, Botswana, Burkina Faso, Central African Republic, Chad, China, India, Mali, Niger and the U.S.S.R., in the bands 4 063 4 123 kHz, 4 130 4 133 kHz and 4 408 4 438 kHz, stations of limited power in the fixed service which are situated at least 600 km from the coast may operate on condition that harmful interference is not caused to the maritime mobile service.
- On condition that harmful interference is not caused to the maritime mobile service, the frequencies in the bands 4 063 4 123 kHz and 4 130 4 438 kHz may be used exceptionally by stations in the fixed service communicating only within the boundary of the country in which they are located with a mean power not exceeding 50 W.
- (Mob-87) The conditions for the use of the carrier frequencies 4 125 kHz and 6 215 kHz are prescribed in Articles 370, 38, N 38 and 60.
- 520A (Mob-87) The frequency 4 209.5 kHz is used exclusively for the transmission by coast stations of meteorological and navigational warnings and urgent information to ships by means of narrow-band direct printing techniques (see Resolution 332 (Mob-87).
- (Mob-87) The frequencies 4 210 kHz, 6 314 kHz, 8 416.5 kHz, 12 579 kHz, 16 806.5 kHz, 19 680.5 kHz, 22 376 kHz and 26 100.5 kHz are the international frequencies for the transmission of Maritime Safety Information (MSI) (see Resolution 333 (Mob-87) and Appendix 31).
- Different category of service: in the U.S.S.R., the allocation of the band 5 130 5 250 kHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 425).
- 521A (WARC-92) The use of the bands 5 900 5 950 kHz, 7 300 7 350 kHz, 9 400 9 500 kHz, 11 600 11 650 kHz, 12 050 12 100 kHz, 13 570 13 600 kHz, 13 800 13 870 kHz, 15 600 15 800 kHz, 17 480 17 550 kHz and 18 900 19 020 kHz by the broadcasting service is limited to single-sideband emissions with the characteristics specified in Appendix 45 to the Radio Regulations.
- 521B (WARC-92) The use of the bands 5 900 5 950 kHz, 7 300 7 350 kHz, 9 400 9500 kHz, 11 600 11 650 kHz, 12 050 12 100 kHz, 13 570 13 600 kHz, 13 800 13 870 kHz, 15 600 15 800 kHz, 17 480 17 550 kHz and 18 900 19 020 kHz by the broadcasting service shall be subject to the planning procedures to be drawn up by a competent world administrative radio conference.

- (WARC-92) The band 5 900 5 950 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis, as well as to the following services: in Region 1 to the land mobile service on a primary basis, in Region 2 to the mobile, except aeronautical mobile (R), service on a primary basis, and in Region 3 to the mobile, except aeronautical mobile (R), service on a secondary basis, subject to application of the procedure referred to in Resolution 21 (WARC-92). After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service, published in accordance with the Radio Regulations.
- On condition that harmful interference is not caused to the maritime mobile service, the bands 6 200 6 213.5 kHz and 6 220.5 6 525 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W. At the time of notification of these frequencies, the attention of the International Frequency Registration Board will be drawn to the above conditions.
- 523 (MOB-83) SUP
- The band 6 765 6 795 kHz (centre frequency 6 780 kHz) is designated for industrial, scientific and medical (ISM) applications. The use of this frequency band for ISM applications shall be subject to special authorization by the administration concerned, in agreement with other administrations whose radiocommunication services might be affected. In applying this provision, administrations shall have due regard to the latest relevant CCIR Recommendations.
- 525 Different category of service: in Mongolia and the U.S.S.R., the allocation of the band 6 765 7 000 kHz to the land mobile service is on a primary basis (see No. 425).
- Additional allocation: in Angola, Iraq, Kenya, Rwanda, Somalia and Togo, the band 7 000 7 050 kHz is also allocated to the fixed service on a primary basis.
- 527 Alternative allocation: in Egypt, Ethiopia, Guinea, Libya, Madagascar, Malawi and Tanzania, the band 7 000 7 050 kHz is allocated to the fixed service on a primary basis.
- The use of the band 7 100 7 300 kHz in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3.

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- (WARC-92) The band 7 300 7 350 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis and to the land mobile service on a secondary basis, subject to application of the procedure referred to in Resolution 21 (WARC-92). After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.
- In Region 3, the stations of those services to which the band 7 995 8 005 kHz is allocated may transmit standard frequency and time signals.
- 529A (Mob-87) The conditions for the use of the carrier frequencies 8 291 kHz, 12 290 kHz and 16 420 kHz are prescribed in Articles 38, N 38 and 60.
- (WARC-92) The bands 9 400 9 500 kHz, 11 600 11 650 kHz, 12 050 12 100 kHz, 15 600 15 800 kHz, 17 480 17 550 kHz and 18 900 19 020 kHz are allocated to the fixed service on a primary basis until 1 April 2007, subject to application of the procedure referred to in Resolution 21 (WARC-92). After 1 April 2007, frequencies in these bands may be used by stations in the fixed service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies in the fixed service, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service, published in accordance with the Radio Regulations.
- On condition that harmful interference is not caused to the broadcasting service, frequencies in the bands 9 775 9 900 kHz, 11 650 11 700 kHz and 11 975 12 050 kHz may be used by stations in the fixed service communicating only within the boundary of the country in which they are located, each station not using a total radiated power exceeding 24 dBW.
- (HFBC-87) The bands 9 775 9 900 kHz, 11 650 11 700 kHz, 11 975 12 050 kHz, 13 600 13 800 kHz, 15 450 15 600 kHz, 17 550 17 700 kHz and 21 750 21 850 kHz are allocated to the fixed service on a primary basis subject to the procedure described in Resolution 8. The use of these bands by the broadcasting service shall be subject to provisions established by the World Administrative Radio Conference for the Planning of the HF Bands Allocated to the Broadcasting Service (see Resolution 508). The provisions of Resolution 512 (HFBC-87) also apply. Within these bands, the date of commencement of operations in the broadcasting service on a planned channel shall not be earlier than the date of completion of satisfactory transfer, according to the procedures described in Resolution 8, of all assignments to stations in the fixed service operating in accordance with the Table and other provisions of the Radio Regulations, which are recorded in the Master Register and which may be affected by broadcasting operations on that channel.

- In making assignments to stations of other services to which the band 13 360 13 410 kHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- The band 13 553 13 567 kHz (centre frequency 13 560 kHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.
- (WARC-92) The bands 13 570 13 600 kHz and 13 800 13 870 kHz are allocated, until 1 April 2007, to the fixed service on a primary basis and to the mobile, except aeronautical mobile (R), service on a secondary basis, subject to application of the procedure referred to in Resolution 21 (WARC-92). After 1 April 2007, frequencies in these bands may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that harmful interference is not caused to the broadcasting service. When using frequencies in these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service, published in accordance with the Radio Regulations.
- Additional allocation: in Afghanistan, China, Côte d'Ivoire, Iran and the U.S.S.R., the band 14 250 14 350 kHz is also allocated to the fixed service on a primary basis. Stations of the fixed service shall not use a radiated power exceeding 24 dBW.
- In Region 3, the stations of those services to which the band 15 995 16 005 kHz is allocated may transmit standard frequency and time signals.
- 537 (WARC-92) SUP
- Additional allocation: in the U.S.S.R., the band 18 068 18 168 kHz is also allocated to the fixed service on a primary basis for use within the boundaries of the U.S.S.R., with a peak envelope power not exceeding 1 kW.
- Alternative allocation: in Bulgaria, Czechoslovakia, Hungary, Mongolia, Poland and the U.S.S.R., the band 21 850 21 870 kHz is allocated to the aeronautical fixed and the aeronautical mobile (R) services on a primary basis.
- Additional allocation: in Nigeria, the band 22 720 23 200 kHz is also allocated to the meteorological aids service (radiosondes) on a primary basis.
- The use of the band 23 350 24 000 kHz by the maritime mobile service is limited to inter-ship radiotelegraphy.

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- Additional allocation: in Kenya, the band 23 600 24 900 kHz is also allocated to the meteorological aids service (radiosondes) on a primary basis.
- 543 SUP (WARC-92)
- 544 SUP (WARC-92)
- The band 25 550 25 600 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis, subject to the procedure described in Resolution 8. The use of this band by the radio astronomy service shall be subject to the completion of the satisfactory transfer of all assignments to stations in the fixed and mobile, except aeronautical mobile, services operating in this band and recorded in the Master Register, in accordance with the procedure described in Resolution 8. The band 25 600 25 670 kHz is allocated to the broadcasting service on a primary basis, subject to provisions to be established by the World Administrative Radio Conference for the planning of HF bands allocated to the broadcasting service (see Resolution 508). After completion of all the above-mentioned provisions, all emissions capable of causing harmful interference to the radio astronomy service in the band 25 550 25 670 kHz shall be avoided. The use of passive sensors by other services will also be authorized.
- The band 26 957 27 283 kHz (centre frequency 27 120 kHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.
- In making assignments to stations of other services to which the band 37.5 38.25 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- The band 40.66 40.70 MHz (centre frequency 40.68 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.
- Additional allocation: in Botswana, Burundi, Lesotho, Malawi, Namibia, Rwanda, South Africa, Swaziland, Zaire, Zambia and Zimbabwe, the band 41 44 MHz is also allocated to the aeronautical radionavigation service on a primary basis.
- Additional allocation: in Iran and Japan, the band 41 44 MHz is also allocated to the radiolocation service on a secondary basis.
- 551 (WARC-92) SUP

- Additional allocation: in Australia and New Zealand, the band 44 47 MHz is also allocated to the broadcasting service on a primary basis.
- Additional allocation: in Czechoslovakia, Hungary, Kenya, Mongolia and the U.S.S.R., the bands 47 48.5 MHz and 56.5 58 MHz are also allocated to the fixed and land mobile services on a secondary basis.
- (Mob-87) Additional allocation: in Albania, Austria, Belgium, Bulgaria, Côte d'Ivoire, Denmark, the Federal Republic of Germany, Finland, France, Gabon, the German Democratic Republic, Greece, Ireland, Israel, Italy, Jordan, Lebanon, Libya, Liechtenstein, Luxembourg, Madagascar, Mali, Malta, Mauritania, Monaco, Morocco, the Netherlands, Nigeria, Norway, Poland, Senegal, Swaziland, Sweden, Switzerland, Syria, Togo, Tunisia, Turkey, the United Kingdom and Yugoslavia, the band 47 68 MHz, and in Romania, the band 47 58 MHz are also allocated to the land mobile service on a permitted basis. However, stations of the land mobile service in countries mentioned in connection with each band referred to in this footnote shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations of countries other than those mentioned in connection with the band.
- (WARC-92) Additional allocation: in Angola, Cameroon, Chad, Congo, Madagascar, Mozambique, Somalia, Sudan and Tanzania, the band 47 68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a permitted basis.
- 556 Alternative allocation: in New Zealand, the band 50 51 MHz is allocated to the fixed, mobile and broadcasting services on a primary basis; the band 53 54 MHz is allocated to the fixed and mobile services on a primary basis.
- Alternative allocation: in Afghanistan, Bangladesh, Brunei, India, Indonesia, Iran, Malaysia, Pakistan, Singapore and Thailand, the band 50 54 MHz is allocated to the fixed, mobile and broadcasting services on a primary basis.
- Additional allocation: in Australia, China and the Democratic People's Republic of Korea, the band 50 54 MHz is also allocated to the broadcasting service on a primary basis.
- Alternative allocation: in Botswana, Burundi, Lesotho, Malawi, Namibia, Rwanda, South Africa, Swaziland, Zaire, Zambia and Zimbabwe, the band 50 54 MHz is allocated to the amateur service on a primary basis.
- Additional allocation: in New Zealand, the band 51 53 MHz is also allocated to the fixed and mobile services on a primary basis.
- Additional allocation: in Botswana, Burundi, Lesotho, Malawi, Mali, Namibia, Rwanda, South Africa, Swaziland, Zaire, Zambia and Zimbabwe, the band 54 68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

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- Different category of service: in the French Overseas Departments in Region 2, Guyana, Jamaica and Mexico, the allocation of the band 54 68 MHz to the fixed and mobile services is on a primary basis (see No. 425).
- Different category of service: in Cuba, the French Overseas Departments in Region 2, Guyana, Jamaica and Mexico, the allocation of the band 68 72 MHz to the fixed and mobile services is on a primary basis (see No. 425).
- Alternative allocation: in Bulgaria, Czechoslovakia, Hungary, Poland and Romania, the band 68 73 MHz is allocated to the broadcasting service on a primary basis and is used in accordance with the decisions in the Final Acts of the Special Regional Conference, Geneva, 1960.
- Alternative allocation: in Mongolia and the U.S.S.R., the bands 68 73 MHz and 76 87.5 MHz are allocated to the broadcasting service on a primary basis. The services to which these bands are allocated in other countries and the broadcasting service in Mongolia and the U.S.S.R. are subject to agreements with the neighbouring countries concerned.
- Additional allocation: in Australia, China, the Democratic People's Republic of Korea, the Philippines, the Republic of Korea, and Western Samoa, the band 68 74 MHz is also allocated to the broadcasting service on a primary basis.
- Additional allocation: in Bulgaria, Czechoslovakia, Hungary, Mongolia, Poland and the U.S.S.R., the band 73 74 MHz is also allocated to the broadcasting service on a primary basis. The use of this band by the broadcasting service in Bulgaria, Hungary, Mongolia, Poland and the U.S.S.R. is subject to agreement obtained under the procedure set forth in Article 14.
- In making assignments to stations of other services to which the band 73 74.6 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- 569 **(WARC-92)** SUP
- Additional allocation: in Colombia, Costa Rica, Cuba, El Salvador, Ecuador, Guatemala, Guyana, Honduras and Nicaragua, the band 73 74.6 MHz is also allocated to the fixed and mobile services on a secondary basis.
- (WARC-92) Additional allocation: in Bulgaria, Czechoslovakia, China, Mongolia, Poland and the U.S.S.R., the bands 74.6 74.8 MHz and 75.2 75.4 MHz are also allocated to the aeronautical radionavigation service, on a primary basis, for ground-based transmitters only.

- (WARC-92) The frequency 75 MHz is assigned to marker beacons. Administrations shall refrain from assigning frequencies close to the limits of the guardband to stations of other services which, because of their power or geographical position, might cause harmful interference or otherwise place a constraint on marker beacons.
  - Every effort should be made to improve further the characteristics of airborne receivers and to limit the power of transmitting stations close to the limits 74.8 MHz and 75.2 MHz.
- (Mob-87) Additional allocation: in Afghanistan, Austria, Belgium, Cyprus, Denmark, Egypt, the Federal Republic of Germany, France, Greece, Israel, Italy, Japan, Jordan, Lebanon, Malta, Monaco, Morocco, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Syria, Turkey and the United Kingdom, the band 74.8 75.2 MHz is also allocated to the mobile service on a secondary basis subject to agreement obtained under the procedure set forth in Article 14. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of Article 14.
- 573 Additional allocation: in Western Samoa, the band 75.4 87 MHz is also allocated to the broadcasting service on a primary basis.
- Additional allocation: in China, the Democratic People's Republic of Korea, Japan, the Philippines and the Republic of Korea, the band 76 87 MHz is also allocated to the broadcasting service on a primary basis.
- Additional allocation: in Bulgaria, Czechoslovakia, Hungary, Poland, Romania, the band 76 87.5 MHz is also allocated to the broadcasting service on a primary basis and used in accordance with the decisions contained in the Final Acts of the Special Regional Conference, Geneva, 1960.
- 576 Different category of service: in the French Overseas Departments in Region 2, Guyana, Jamaica, Mexico, Paraguay and the United States, the allocation of the band 76 88 MHz to the fixed and mobile services is on a primary basis (see No. 425).
- In Region 3 (except in India, Japan, Malaysia, the Philippines, the Republic of Korea, Singapore and Thailand), the band 79.75 80.25 MHz is also allocated to the radio astronomy service on a primary basis. In making assignments to stations of other services, administrations are urged to take all practicable steps in the band to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- Alternative allocation: in Albania, the band 81 87.5 MHz is allocated to the broadcasting service on a primary basis and is used in accordance with the decisions contained in the Final Acts of the Special Regional Conference, Geneva, 1960.

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- Additional allocation: in Afghanistan and Australia, the band 85 87 MHz is also allocated to the broadcasting service on a primary basis. The introduction of the broadcasting service in these countries is subject to special agreements between the administrations concerned.
- 580 Alternative allocation: in New Zealand, the band 87 88 MHz is allocated to the land mobile service on a primary basis.
- (WARC-92) Additional allocation: in the Federal Republic of Germany, France, Ireland, Israel, Italy, Liechtenstein, Monaco, Switzerland and the United Kingdom, the band 87.5 88 MHz is also allocated to the land mobile service on a permitted basis and is subject to agreement obtained under the procedure set forth in Article 14.
- 582 SUP (WARC-92)
- 583 (Mob-87) SUP
- Broadcasting stations in the band 100 108 MHz in Region 1 shall be established and operated in accordance with an agreement and associated plan for the band 87.5 108 MHz to be drawn up by a regional broadcasting conference (see Resolution 510). Prior to the date of entry into force of this agreement, broadcasting stations may be introduced subject to agreement between administrations concerned, on the understanding that such an operation shall in no case prejudice the establishment of the plan.
- Additional allocation: in China, the Republic of Korea, the Philippines and Singapore, the band 100 108 MHz is also allocated to the fixed and mobile services on a permitted basis.
- Alternative allocation: in New Zealand, the band 100 108 MHz is allocated to the land mobile service on a primary basis and to the broadcasting service on a secondary basis.
- (WARC-92) Additional allocation: in Bulgaria, Czechoslovakia, the German Democratic Republic, Israel, Kenya, Lebanon, Mongolia, Somalia, Syria, Turkey, the United Kingdom and the U.S.S.R., the band 104 108 MHz is also allocated to the mobile, except aeronautical mobile (R), service on a permitted basis until 31 December 1995 and, thereafter, on a secondary basis.
- Additional allocation: in Finland and Yugoslavia, the band 104 108 MHz is also allocated to the fixed service on a permitted basis until 31 December 1995. The effective radiated power of any station shall not exceed 25 W.
- (Mob-87) Additional allocation: in France, Romania, Sweden, Turkey and Yugoslavia, the band 104 108 MHz is also allocated to the mobile, except aeronautical mobile (R), service on a permitted basis until 31 December 1995.

- 590 (Mob-87) SUP
- (Mob-87) Additional allocation: in Afghanistan, Austria, Cyprus, Denmark, Egypt, the Federal Republic of Germany, France, Israel, Italy, Japan, Jordan, Lebanon, Malta, Monaco, Morocco, Norway, Pakistan, Portugal, Spain, Sweden, Switzerland, Syria, Turkey and the United Kingdom, the band 108 111.975 MHz is also allocated to the mobile service on a secondary basis subject to agreement obtained under the procedure set forth in Article 14. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administrations which may be identified in the application of Article 14.
- Subject to agreement obtained under the procedure set forth in Article 14, the band 117.975 137 MHz is also allocated to the aeronautical mobile-satellite (R) service on a secondary basis and on the condition that harmful interference is not caused to the aeronautical mobile (R) service.
- 592 (MOB-83) The bands 121.45 121.55 MHz and 242.95 243.05 MHz are also allocated to the mobile-satellite service for the reception on board satellites of emissions from emergency position-indicating radiobeacons transmitting at 121.5 MHz and 243 MHz (see Nos. **3259** and **3267**).
- (Mob-87) In the band 117.975 136 MHz, the frequency 121.5 MHz is the aeronautical emergency frequency and, where required, the frequency 123.1 MHz is the aeronautical frequency auxiliary to 121.5 MHz. Mobile stations of the maritime mobile service may communicate on these frequencies under the conditions laid down in Article 38 and N 38 for distress and safety purposes with stations of the aeronautical mobile service.
- Additional allocation: in Angola, Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Iran, Iraq, Japan, Mongolia, Mozambique, Papua New Guinea, Poland, Romania and the U.S.S.R., the band 132 136 MHz is also allocated to the aeronautical mobile (OR) service on a permitted basis.
- 594A (Mob-87) *Different category of service:* as of 1 January 1990, in Bulgaria, Czechoslovakia, the German Democratic Republic, Poland, Romania, Turkey and the USSR, the allocation of the band 136 137 MHz to the aeronautical mobile (OR) service is on a permitted basis.
- (Mob-87) Until 1 January 1990, the band 136 137 MHz is also allocated to the space operation service (space-to-Earth), meteorological-satellite service (space-to-Earth) and the space research service (space-to-Earth) on a primary basis. The introduction of stations of the aeronautical mobile (R) service shall occur only after that date. After 1 January 1990, the band 136 137 MHz will also be allocated to the above-mentioned space radiocommunication service on a secondary basis (see Resolution 408 (Mob-87)).

# Page 84 Canadian Table of Frequency Allocations

- (WARC-92) Different category of service: in Afghanistan, Bahrain, Bangladesh, Brunei Darussalam, China, Cuba, India, Indonesia, Iran, Iraq, Malaysia, Oman, Pakistan, Philippines, Qatar, Saudi Arabia, Singapore, Sri Lanka, Thailand, the United Arab Emirates, Yemen and Yugoslavia, the band 137 138 MHz is allocated to the fixed and mobile, except aeronautical mobile (R), services is on a primary basis (see No. 425).
- (WARC-92) Different category of service: in Israel and Jordan, the allocation of the band 137 138 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No.425).
- (WARC-92) Different category of service: in Austria, Bulgaria, Czechoslovakia, Egypt, Finland, France, the German Democratic Republic, Greece, Hungary, Lebanon, Mongolia, Poland, Romania, Syria and the U.S.S.R., the allocation of the band 137 138 MHz to the aeronautical mobile (OR) service is on a primary basis (see No. 425).
- Additional allocation: in Australia, the band 137 144 MHz is also allocated to the broadcasting service on a primary basis until that service can be accommodated within regional broadcasting allocations.
- (WARC-92) The use of the band 137 138 MHz by the mobile-satellite service is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). However, coordination of a space station of the mobile satellite service with respect to terrestrial services is required only if the power flux-density produced by the station exceeds -125 dB (W/m² /4 kHz) at the Earth's surface. The above power flux-density limit shall apply until such time as a competent world administrative radio conference revises it. In making assignments to the space stations in the mobile-satellite service in the above band, administrations shall take all practicable steps to protect the radio astronomy service in the 150.05 153 MHz band from harmful interference from unwanted emissions.
- (WARC-92) The use of the bands 137 138 MHz, 148 149.9 MHz and 400.15 401 MHz by the mobile-satellite service and the band 149.9 150.05 MHz by the land mobile-satellite service is limited to non-geostationary-satellite systems.
- Additional allocation: in Austria, Belgium, Czechoslovakia, the Federal Republic of Germany, France, Israel, Italy, Liechtenstein, Luxembourg, Sweden, Switzerland and the United Kingdom, the bands 138 143.6 MHz and 143.65 144 MHz are also allocated to the space research service (space-to-Earth) on a secondary basis.
- Additional allocation: in Austria, Bahrain, Belgium, Denmark, the Federal Republic of Germany, Finland, Greece, Ireland, Israel, Kenya, Kuwait, Liechtenstein, Luxembourg, Mali, Malta, the Netherlands, Norway, Qatar, Saudi Arabia, Somalia, Spain, Sweden, Switzerland, Tanzania, Tunisia, Turkey, the United Arab Emirates, the United Kingdom and Yugoslavia, the band 138 144 MHz is also allocated to the maritime mobile and land mobile services on a primary basis.

- Alternative allocation: in Angola, Botswana, Burundi, Cameroon, Central African Republic, Chad, Congo, Gabon, Gambia, Ghana, Guinea, Iraq, Jordan, Lesotho, Liberia, Libya, Malawi, Mozambique, Namibia, Nigeria, Oman, Rwanda, Sierra Leone, South Africa, Swaziland, Togo, Zaire, Zambia and Zimbabwe, the band 138 144 MHz is allocated to the fixed and mobile services on a primary basis.
- 603 Additional allocation: in China, the band 138 144 MHz is also allocated to the radiolocation service on a primary basis.
- 604 (WARC-92) Additional allocation: in Ethiopia, Finland, Kenya, Malta, Somalia, Sudan, Tanzania and Yugoslavia, the band 138 144 MHz is also allocated to the fixed service on a primary basis.
- Additional allocation: in Singapore, the band 144 145 MHz is also allocated to the fixed and mobile services on a primary basis. Such use is limited to systems in operation on or before 1 January 1980, which in any case shall cease by 31 December 1995.
- Additional allocation: in China, the band 144 146 MHz is also allocated to the aeronautical mobile (OR) service on a secondary basis.
- Alternative allocation: in Afghanistan, Bangladesh, Cuba, Guyana and India the band 146 148 MHz is allocated to the fixed and mobile services on a primary basis.
- Subject to agreement obtained under the procedures set forth in Article 14, the band 148 149.9 MHz may be used by the space operation service (Earth-to-space). The bandwidth of an individual transmission shall not exceed ± 25 kHz.
- 608A (WARC-92) The use of the band 148 149.9 MHz by the mobile-satellite service is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). The mobile-satellite service shall not constrain the development and use of fixed, mobile and space operation services in the band 148 149.9 MHz. Mobile earth stations in the mobile-satellite service shall not produce a power flux-density in excess of -150 dB (W/m² /4 kHz) outside national boundaries.
- (WARC-92) The use of the band 149.9 150.05 MHz by the land mobile-satellite service is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). The land mobile-satellite service shall not constrain the development and use of the radionavigation-satellite service in the band 149.9 150.05 MHz. Land mobile earth stations of the land mobile-satellite service shall not produce power flux-density in excess of -150 dB (W/m²/4 kHz) outside national boundaries.

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- (WARC-92) Stations of the mobile-satellite service in the band 148 149.9 MHz shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services in the following countries: Algeria, Australia, Austria, Bangladesh, Belarus, Belgium, Brunei Darussalam, Bulgaria, Cameroon, Canada, Chad, Colombia, Congo, Cuba, Cyprus, the Czech and Slovak Federal Republic, Denmark, Ecuador, Egypt, Ethiopia, the Federal Republic of Germany, Finland, France, Ghana, Greece, Honduras, Hungary, Iceland, Iran, Ireland, Israel, Italy, Japan, Jordan, Kenya, Libya, Liechtenstein, Luxembourg, Malaysia, Mali, Malta, Mauritania, Mozambique, Namibia, the Netherlands, New Zealand, Norway, Oman, Pakistan, Panama, Papua New Guinea, the Philippines, Poland, Portugal, Qatar, Romania, the Russian Federation, Saudi Arabia, Singapore, Spain, Sri Lanka, Suriname, Swaziland, Sweden, Switzerland, Syria, Tanzania, Thailand, Tunisia, Turkey, Ukraine, the United Arab Emirates, the United Kingdom, Yemen and Yugoslavia which operate in accordance with the Table of Frequency Allocations.
- Emissions of the radionavigation-satellite service in the bands 149.9 150.05 MHz and 399.9 400.05 MHz may also be used by receiving earth stations of the space research service.
- 609A (Mob-87) Recognizing that the use of the band 149.9 150.05 MHz by the fixed and mobile services may cause harmful interference to the radionavigation-satellite service, administrations are urged not to authorize such use in application of No. 342.
- 609B (WARC-92) In the band 149.9 150.05 MHz, the allocation to the land mobile-satellite service shall be on a secondary basis until 1 January 1997.
- In making assignments to stations of other services to which the band 150.05 153 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- Additional allocation: in Australia and India, the band 150.05 153 MHz is also allocated to the radio astronomy service on a primary basis.
- 612 (WARC-92) SUP

613 (Mob-87) The frequency 156.8 MHz is the international distress, safety and calling frequency for the maritime mobile VHF radiotelephone service. The conditions for the use of this frequency are contained in Articles 38 and N 38.

In the bands 156 - 156.7625 MHz, 156.8375 - 157.45 MHz, 160.6 - 160.975 MHz and 161.475 - 162.05 MHz, each administration shall give priority to the maritime mobile service on only such frequencies as are assigned to stations of the maritime mobile service by the administration (see Articles 38, N 38 and 60).

Any use of frequencies in these bands by stations of other services to which they are allocated should be avoided in areas where such use might cause harmful interference to the maritime mobile VHF radiocommunication service.

However, the frequency 156.8 MHz and the frequency bands in which priority is given to the maritime mobile service may be used for radiocommunications on inland waterways subject to agreement between interested and affected administrations and taking into account current frequency usage and existing agreements.

- 613A (Mob-87) In the maritime mobile VHF service, the frequency 156.525 MHz is to be used exclusively for digital selective calling for distress, safety and calling (see Resolution 323 (Mob-87)). The conditions for the use of these frequencies are prescribed in Articles 38, N 38 and 60 and in Appendix 18.
- 613B (Mob-87) Additional allocation: in Ireland and the United Kingdom, the band 161.3875 161.4125 MHz is also allocated to the maritime radionavigation service on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.
- 614 (WARC-92) SUP
- Alternative allocation: in Morocco, the band 162 174 MHz is allocated to the broadcasting service on a primary basis. The use of this band shall be subject to agreement with administrations having services, operating or planned, in accordance with the Table which are likely to be affected. Stations in existence on 1 January 1981, with their technical characteristics as of that date, are not affected by such agreement.
- Additional allocation: in China, the band 163 167 MHz is also allocated to the space operation service (space-to-Earth) on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.
- Additional allocation: in Afghanistan, China and Pakistan, the band 167 174 MHz is also allocated to the broadcasting service on a primary basis. The introduction of the broadcasting service into this band shall be subject to agreement with the neighbouring countries in Region 3 whose services are likely to be affected.

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- 618 Additional allocation: in Japan, the band 170 174 MHz is also allocated to the broadcasting service on a primary basis.
- Additional allocation: in China, the band 174 184 MHz is also allocated to the space research (space-to-Earth) and the space operation (space-to-Earth) services on a primary basis, subject to agreement obtained under the procedure set forth in Article 14. These services shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations.
- 620 Different category of service: in Mexico, the allocation of the band 174 216 MHz to the fixed and mobile services is on a primary basis (see No. 425).
- (WARC-92) Additional allocation: in Austria, Belgium, Denmark, the Federal Republic of Germany, Finland, France, Israel, Italy, Liechtenstein, Malta, Monaco, the Netherlands, Norway, Spain, Sweden, Switzerland and the United Kingdom, the band 174 223 MHz is also allocated to the land mobile service on a permitted basis. However, the stations of the land mobile service shall not cause harmful interference to, or claim protection from, broadcasting stations, existing or planned, in countries other than those listed in this footnote.
- (WARC-92) Different category of service: in Austria, Belgium, Denmark, the Federal Republic of Germany, Finland, France, Israel, Italy, Liechtenstein, Luxembourg, Malta, Monaco, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom, the band 223 230 MHz is allocated to the land mobile service on a permitted basis (see No. 425). However, the stations of the land mobile service shall not cause harmful interference to, or claim protection from, broadcasting stations, existing or planned, in countries other than those listed in this footnote.
- 623 **(WARC-92)** *Additional allocation:* in Congo, Ethiopia, Gambia, Guinea, Kenya, Libya, Malawi, Mali, Senegal, Sierra Leone, Somalia, Tanzania, Uganda and Zimbabwe, the band 174 223 MHz is also allocated to the fixed and mobile services on a secondary basis.
- Additional allocation: in Bangladesh, India, Pakistan and the Philippines, the band 200 216 MHz is also allocated to the aeronautical radionavigation service on a primary basis.
- Additional allocation: in Australia and Papua New Guinea, the bands 204 208 MHz and 222 223 MHz are also allocated to the aeronautical radionavigation service on a primary basis.
- Additional allocation: in China, India and Thailand, the band 216 223 MHz is also allocated to the aeronautical radionavigation service on a primary basis and to the radiolocation service on a secondary basis.
- 627 **(WARC-92)** In Region 2, no new stations in the radiolocation service may be authorized in the band 216 225 MHz. Stations authorized prior to 1 January 1990 may continue to operate on a secondary basis.

(Mob-87) Additional allocation: in Canada, the band 216 - 220 MHz is also allocated to the land mobile

service on a primary basis. 628 Additional allocation: in Somalia, the band 216 - 225 MHz is also allocated to the aeronautical radionavigation service on a primary basis, subject to not causing harmful interference to existing or planned broadcasting services in other countries. 629 Additional allocation: in Oman, Turkey and the United Kingdom, the band 216 - 235 MHz is also allocated to the radiolocation service on a secondary basis. 630 Additional allocation: in Japan, the band 222 - 223 MHz is also allocated to the aeronautical radionavigation service on a primary basis and to the radiolocation service on a secondary basis. 631 Different category of service: in Portugal and Spain, the band 223 - 230 MHz is allocated to the fixed service on a permitted basis (see No. 425). Stations of this service shall not cause harmful interference to, or claim protection from, broadcasting stations of other countries, whether existing or planned, that operate in accordance with the Table. 632 Additional allocation: in Bahrain, Israel, Jordan, Oman, Qatar, Saudi Arabia, Syria and the United Arab Emirates, the band 223 - 235 MHz is also allocated to the aeronautical radionavigation service on a permitted basis. 633 (WARC-92) SUP 634 (WARC-92) SUP 635 (WARC-92) Alternative allocation: in Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa,

627A

Article 14.

Alternative allocation: in New Zealand, the Niue and Cook Islands and Western Samoa, the band 225 - 230 MHz is allocated to the fixed, mobile and aeronautical radionavigation services on a primary basis.

Swaziland, Zambia and Zimbabwe, the bands 223 - 238 MHz and 246 - 254 MHz are allocated to the broadcasting service on a primary basis, subject to agreement obtained under the procedures set forth in

- 637 Additional allocation: in China, the band 225 235 MHz is also allocated to the radio astronomy service on a secondary basis.
- Additional allocation: in Nigeria, the band 230 235 MHz is also allocated to the aeronautical radionavigation service on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.

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- Additional allocation: in Yugoslavia, the band 230 235 MHz is also allocated to the aeronautical radionavigation service on a primary basis until 1 January 1995. The use of this band by the aeronautical radionavigation service in Yugoslavia is restricted to the stations in operation by 1 January 1980.
- Additional allocation: in New Zealand, the band 235 239.5 MHz is also allocated to the aeronautical radionavigation service on a primary basis.
- Subject to agreement obtained under the procedure set forth in Article 14, the bands 235 322 MHz and 335.4 399.9 MHz may be used by the mobile-satellite service, on condition that stations in this service do not cause harmful interference to those of other services operating or planned to be operated in accordance with the Table.
- 641A (WARC-92) The bands 312 315 MHz (Earth-to-space) and 387 390 MHz (space-to-Earth) in the mobile-satellite service may also be used by non-geostationary-satellite systems. Such use is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92).
- 642 (Mob-87) The frequency 243 MHz is the frequency in this band for use by survival-craft stations and equipment used for survival purposes (see Article 38).
- Subject to agreement obtained under the procedure set forth in Article 14, the band 267 272 MHz may be used by administrations for space telemetry in their countries on a primary basis.
- In making assignments to stations of other services to which the band 322 328.6 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- 645 Limited to Instrument Landing Systems (glide path).
- (Mob-87) Additional allocation: in Afghanistan, Austria, Belgium, Cyprus, Denmark, Egypt, the Federal Republic of Germany, France, Greece, Israel, Italy, Japan, Jordan, Malta, Monaco, Morocco, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Syria, Turkey and the United Kingdom, the band 328.6 335.4 MHz is also allocated to the mobile service on a secondary basis subject to agreement obtained under the procedure set forth in Article 14. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of Article 14.
- (Mob-87) Recognizing that the use of the band 399.9 400.05 MHz by the fixed and mobile services may cause harmful interference to the radionavigation satellite service, administration are urged not to authorize such use in application of No. 342.
- Emissions shall be confined in a band of ± 25 kHz about the standard frequency 400.1 MHz.

- (WARC-92) Additional allocation: in Afghanistan, Bahrain, Bulgaria, Colombia, Costa Rica, Cuba, Czechoslovakia, Ecuador, Egypt, the German Democratic Republic, Hungary, Indonesia, Iran, Iraq, Israel, Jordan, Kuwait, Liberia, Malaysia, Nigeria, Oman, Pakistan, the Philippines, Poland, Qatar, Romania, Saudi Arabia, Singapore, Somalia, Sri Lanka, Syria, Thailand, the United Arab Emirates, the U.S.S.R. and Yugoslavia, the band 400.05 401 MHz is also allocated to the fixed and mobile services on a primary basis.
- 647A (WARC-92) The band 400.15 401 MHz is also allocated to the space research service in the space-to-space direction for communications with manned space vehicles. In this application, the space research service will not be regarded as a safety service.
- (WARC-92) The use of the band 400.15 401 MHz by the mobile-satellite service is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). However, coordination of a space station of the mobile-satellite service with respect to terrestrial services is required only if the power flux-density produced by the station exceeds -125 dB (W/m²/4 kHz) at the Earth's surface. The above power flux-density limit shall apply until such time as a competent world administrative radio conference revises it. In making assignments to the space stations in the mobile-satellite service in the above band, administrations shall take all practicable steps to protect the radio astronomy service in the band 406.1 410 MHz from harmful interference from unwanted emissions.
- Additional allocation: in Canada, the bands 405.5 406 MHz and 406.1 410 MHz are also allocated to the mobile-satellite, except aeronautical mobile-satellite, service (Earth-to-space) on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.
- (Mob-87) The use of the band 406 406.1 MHz by the mobile-satellite service is limited to low-power satellite emergency position-indicating radiobeacons (see also Article 38 and N 38).
- 649A (Mob-87) Any emission capable of causing harmful interference to the authorized uses of the band 406 406.1 MHz is prohibited.
- In making assignments to stations of other services to which the band 406.1 410 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- Different category of service: in Australia, India, Japan, the United Kingdom and the United States, the allocation of the bands 420 430 MHz and 440 450 MHz to the radiolocation service is on a primary basis (see No. 425).
- 651A (WARC-92) Use of the band 410 420 MHz by the space research service is limited to communications within 5 km of an orbiting, manned space vehicle.

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- Additional allocation: in Australia, Jamaica, the Philippines and the United States, the bands 420 430 MHz and 440 450 MHz are also allocated to the amateur service on a secondary basis.
- Additional allocation: in China, the German Democratic Republic, India, the United Kingdom and the U.S.S.R., the band 420 460 MHz is also allocated to the aeronautical radionavigation service (radio altimeters) on a secondary basis.
- 654 Different category of service: in France, the allocation of the band 430 434 MHz to the amateur service is on a secondary basis (see No. 424).
- 655 Different category of service: in Denmark, Libya, Norway and Sweden, the allocation of the bands 430 432 MHz and 438 440 MHz to the radiolocation service is on a secondary basis (see No.424).
- Alternative allocation: in Denmark, Norway and Sweden, the bands 430 432 MHz and 438 440 MHz are allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
- Additional allocation: in Finland, Libya and Yugoslavia, the bands 430 432 MHz and 438 440 MHz are also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
- (WARC-92) Additional allocation: in Afghanistan, Algeria, Bahrain, Bangladesh, Brunei Darussalam, Burkina Faso, Burundi, Ecuador, Egypt, Ethiopia, Greece, Guinea, India, Indonesia, Iran, Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Lebanon, Libya, Liechtenstein, Malaysia, Malta, Nigeria, Oman, Pakistan, the Philippines, Qatar, Saudi Arabia, Singapore, Somalia, Switzerland, Syria, Tanzania, Thailand, Togo, Turkey, the United Arab Emirates and Yemen, the band 430 440 MHz is also allocated to the fixed service on a primary basis and the bands 430 435 MHz and 438 440 MHz are also allocated to the mobile, except aeronautical mobile, service on a primary basis.
- (WARC-92) Additional allocation: in Angola, Bulgaria, Cameroon, Chad, Congo, Czechoslovakia, the Democratic People's Republic of Korea, Djibouti, Gabon, the German Democratic Republic, Hungary, Malawi, Mali, Mongolia, Niger, Pakistan, Poland, Romania, Rwanda and the U.S.S.R., the band 430 440 MHz is also allocated to the fixed service on a primary basis.
- Different category of service: in Argentina, Colombia, Costa Rica, Cuba, Guyana, Honduras, Panama and Venezuela, the allocation of the band 430 440 MHz to the amateur service is on a primary basis (see No. 425).
- 660A (Mob-87) Additional allocation: in Mexico, the bands 430 435 MHz and 438 440 MHz are also allocated on a primary basis to the land mobile service, subject to agreement obtained under the procedure set forth in Article 14.

- In Region 1, except in the countries mentioned in No. 662, the band 433.05 434.79 MHz (centre frequency 433.92 MHz) is designated for industrial, scientific and medical (ISM) applications. The use of this frequency band for ISM applications shall be subject to special authorization by the administration concerned, in agreement with other administrations whose radiocommunications services might be affected. In applying this provision, administrations shall have due regard to the latest relevant CCIR Recommendations.
- In Austria, the Federal Republic of Germany, Liechtenstein, Portugal, Switzerland and Yugoslavia, the band 433.05 434.79 MHz (centre frequency 433.92 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services of these countries operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.
- (WARC-92) Additional allocation: in the French Overseas Departments in Region 2 and India, the band 433.75 434.25 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis. In France and in Brazil, the band is allocated to the same service on a secondary basis.
- In the bands 435 438 MHz, 1 260 1 270 MHz, 2 400 2 450 MHz, 3 400 3 410 MHz (in Regions 2 and 3 only) and 5 650 5 670 MHz, the amateur-satellite service may operate subject to not causing harmful interference to other services operating in accordance with the Table (see No. 435). Administrations authorizing such use shall ensure that any harmful interference caused by emissions from a station in the amateur-satellite service is immediately eliminated in accordance with the provisions of No. 2741. The use of the bands 1 260 1 270 MHz and 5 650 5 670 MHz by the amateur-satellite service is limited to the Earth-to-space direction.
- Additional allocation: in Austria, the band 438 440 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
- Additional allocation: in Canada, New Zealand and Papua New Guinea, the band 440 450 MHz is also allocated to the amateur service on a secondary basis.
- 667 Different category of service: in Canada, the allocation of the band 440 450 MHz to the radiolocation service is on a primary basis (see No. 425).
- Subject to agreement obtained under the procedure set forth in Article 14, the band 449.75 450.25 MHz may be used for the space operation service (Earth-to-space) and the space research service (Earth-to-space).
- In the maritime mobile service, the frequencies 457.525 MHz, 457.550 MHz, 457.575 MHz, 467.525 MHz, 467.550 MHz and 467.575 MHz may be used by on-board communication stations. The use of these frequencies in territorial waters may be subject to the national regulations of the administration concerned. The characteristics of the equipment used shall conform to those specified in Appendix 20.

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- In the territorial waters of Canada, the Philippines and the United States, the preferred frequencies for use by on-board communication stations shall be 457.525 MHz, 457.550 MHz, 457.575 MHz and 457.600 MHz paired, respectively, with 467.750 MHz, 467.775 MHz, 467.800 MHz and 467.825 MHz. The characteristics of the equipment used shall conform to those specified in Appendix 20.
- Earth exploration-satellite service applications, other than the meteorological-satellite service, may also be used in the bands 460 470 MHz and 1 690 1 710 MHz for space-to-Earth transmissions, subject to not causing harmful interference to stations operating in accordance with the Table.
- (WARC-92) Different category of service: in Afghanistan, Bulgaria, China, Cuba, Czechoslovakia, Japan, Mongolia, Poland and the U.S.S.R., the allocation of the band 460 470 MHz to the meteorological-satellite service (space-to-Earth) is on a primary basis (see No. 425) and is subject to agreement obtained under the procedure set forth in Article 14.
- Additional allocation: in China, the band 470 485 MHz is also allocated to the space research (space-to-Earth) and the space operation (space-to-Earth) services on a primary basis, subject to agreement obtained under the procedure set forth in Article 14, subject to not causing harmful interference to existing and planned broadcasting stations.
- 674 (Mob-87) Different category of service: in Mexico and Venezuela, the allocation of the band 470 512 MHz to the fixed and mobile services and, in Argentina and Uruguay, to the mobile service is on a primary basis (see No. 425), subject to agreement obtained under the procedure set forth in Article 14.
- 675 **(WARC-92)** *Different category of service:* in Chile, Colombia, Cuba, Ecuador, Guyana, Honduras, Jamaica, Mexico, Panama and the United States, the allocation of the bands 470 512 MHz and 614 806 MHz to the fixed and mobile services is on a primary basis (see No.425), subject to agreement obtained under the procedure set forth in Article 14.
- 676 (WARC-92) Additional allocation: in Burundi, Cameroon, the Congo, Ethiopia, Israel, Kenya, Lebanon, Libya, Malawi, Senegal, Sudan, Syria and Yemen, the band 470 582 MHz is also allocated to the fixed service on a secondary basis.
- 677 Alternative allocation: in Pakistan, the bands 470 582 MHz and 610 890 MHz are allocated to the broadcasting service on a primary basis.
- (Mob-87) Additional allocation: Austria, Belgium, Cyprus, Denmark, the Federal Republic of Germany, Finland, France, Ireland, Israel, Italy, Libya, Malta, Monaco, Morocco, the Netherlands, Norway, Portugal, Spain, Swaziland, Sweden, Switzerland, Syria, Tunisia, Turkey and the United Kingdom, the band 470 790 MHz is also allocated on a secondary basis to the land mobile service in the countries mentioned in this footnote, and shall not cause harmful interference to existing or planned stations operating in accordance with the Table of Frequency Allocations in countries other than those listed in this footnote.

678 (WARC-92) Additional allocation: in Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, the United States and Venezuela, the band 512 - 608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under the procedure set forth in Article 14. 679 Additional allocation: in India, the band 549.75 - 550.25 MHz is also allocated to the space operation service (space-to-Earth) on a secondary basis. 680<sup>1</sup> (Mob-87) SUP 681 (Mob-87) SUP 682 (WARC-92) SUP 683 Additional allocation: in Oman, the band 582 - 606 MHz is also allocated to the radionavigation service on a secondary basis. 684 Additional allocation: in Israel, Libya, Sudan and Syria, the band 582 - 790 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. 685 Additional allocation: in Denmark and Kuwait, the band 590 - 598 MHz is also allocated to the aeronautical radionavigation service on a primary basis until 1 January 1995. 686 Additional allocation: in the United Kingdom, the band 590 - 598 MHz is also allocated to the aeronautical radionavigation service on a primary basis. All new assignments to stations in the aeronautical radionavigation service, including those transferred from the adjacent bands, shall be subject to coordination with the Administrations of the following countries: Belgium, Denmark, the Federal Republic of Germany, France, Ireland, Luxembourg, Morocco, the Netherlands, Norway and Spain. 686A (Mob-87) Additional allocation: in the United Kingdom, the band 598 - 606 MHz is also allocated to the aeronautical radionavigation service on a primary basis until 31 December 1994. All new assignments to stations in the aeronautical radionavigation service in this band are subject to the agreement of the Administrations of the following countries: Belgium, Denmark, the Federal Republic of Germany, France, Ireland, Luxembourg, Morocco, the Netherlands, Norway and Spain. 687 Additional allocation: in the African Broadcasting Area (see Nos. 400 to 403), the band 606 - 614 MHz is also allocated to the radio astronomy service on a permitted basis. 688 Additional allocation: in China, the band 606 - 614 MHz is also allocated to the radio astronomy service on

a primary basis.

<sup>1.</sup> Note by the Secretary-General: This note has been renumbered 686A, to preserve the chronological order.

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- In Region 1, except in the African Broadcasting Area (see Nos. 400 to 403), and in Region 3, the band 608 614 MHz is also allocated to the radio astronomy service on a secondary basis. In making assignments to stations of other services to which the band is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- 690 Additional allocation: in India, the band 608 614 MHz is also allocated to the radio astronomy service on a primary basis.
- 691 Additional allocation: in New Zealand, the band 610 620 MHz is also allocated to the amateur service on a secondary basis.
- 692 Different category of service: in Costa Rica, El Salvador and Honduras, the allocation of the band 614 806 MHz to the fixed service is on a primary basis (see No. 425), subject to agreement obtained under the procedure set forth in Article 14.
- 692A (Mob-87) *Additional allocation:* in Cuba, the band 614 890 MHz is also allocated to the radionavigation service on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.
- 693 Within the frequency band 620 790 MHz, assignments may be made to television stations using frequency modulation in the broadcasting-satellite service, subject to agreement between the administrations concerned, and those having services, operating in accordance with the Table, which may be affected (see Resolutions 33 and 507). Such stations shall not produce a power flux-density in excess of the value -129 dB (W/m²) for angles of arrival less than 20° (see Recommendation 705) within the territories of other countries without the consent of the administrations of those countries.
- Additional allocation: in Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Mongolia, Poland, Romania and the U.S.S.R., the band 645 862 MHz is also allocated to the aeronautical radionavigation service on a permitted basis.
- Alternative allocation: in France and Spain, the band 790 830 MHz is allocated to the broadcasting service on a primary basis.
- 695A (Mob-87) Additional allocation: in Austria, Italy, Swaziland and the United Kingdom, the band 790 862 MHz is also allocated to the land mobile service on a secondary basis.
- Alternative allocation: in Greece, Italy, Morocco and Tunisia, the band 790 838 MHz is allocated to the broadcasting service on a primary basis.

- (WARC-92) Additional allocation: in Burkina Faso, Cameroon, Côte d'Ivoire, Denmark, Egypt, the Federal Republic of Germany, Finland, Israel, Kenya, Libya, Liechtenstein, Monaco, the Netherlands, Norway, Portugal, Sweden, Switzerland and Yugoslavia, the band 790 830 MHz and, in these same countries and in France and Spain, the Gabonese Republic, Malta, Spain and Syria, the band 830 862 MHz are also allocated to the mobile, except aeronautical mobile, service on a primary basis. However, stations of the mobile service in the countries mentioned in connection with each band referred to in this footnote shall not cause harmful interference to, or claim protection from, stations of services operating in accordance with the Table in countries other than those mentioned in connection with the band.
- 698 (Mob-87) SUP
- 699 (Mob-87) SUP
- 700 (Mob-87) Additional allocation: in Region 2, the band 806 890 MHz is also allocated to the mobile-satellite service on a primary basis. The use of this service is intended for operation within national boundaries and is subject to agreement obtained under the procedure set forth in Article 14.
- (WARC-92) Additional allocation: in Canada, Mexico and the United States, the bands 849 851 MHz and 894 896 MHz are also allocated to the aeronautical mobile service on a primary basis, for public correspondence with aircraft. The use of the band 849 851 MHz is limited to transmissions from aeronautical stations, and the use of the band 894 896 MHz is limited to transmissions from aircraft stations.
- 700B (WARC-92) Additional allocation: in Belarus, the Russian Federation and Ukraine, the bands 806 - 840 MHz (Earth-to-space) and 856 - 890 MHz (space-to-Earth) are also allocated to the mobile-satellite, except aeronautical mobile-satellite (R), service. The use of these bands by this service shall not cause harmful interference to, or claim protection from, services in other countries operating in accordance with the Table of Frequency Allocations and is subject to special agreements between the administrations concerned.
- (Mob-87) Additional allocation: in Region 3, the bands 806 890 MHz and 942 960 MHz are also allocated to the mobile-satellite, except aeronautical mobile-satellite (R), service on a primary basis. The use of this service is limited to operation within national boundaries and is subject to agreement obtained under the procedure set forth in Article 14. In seeking such agreement, appropriate protection shall be afforded to services operating in accordance with the Table, to ensure that no harmful interference is caused to such services.
- 702 Alternative allocation: in Italy, the band 838 854 MHz is allocated to the broadcasting service on a primary basis as from 1 January 1995.
- 703 (WARC-92) In Region 1, in the band 862 960 MHz, stations of the broadcasting service shall be operated only in the African Broadcasting Area (see Nos. 400 to 403) excluding Algeria, Egypt, Libya, Morocco and Spain, subject to agreement obtained under the procedure set forth in Article 14.

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- Additional allocation: in Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Mongolia, Poland, Romania and the U.S.S.R., the band 862 960 MHz is also allocated to the aeronautical radionavigation service on a permitted basis until 1 January 1998. Up to this date, the aeronautical radionavigation service may use the band, subject to agreement obtained under the procedure set forth in Article 14. After this date, the aeronautical radionavigation service may continue to operate on a secondary basis.
- (Mob-87) Additional allocation: in Brazil, Canada and the United States of America, the band 890 896 MHz is also allocated to the mobile-satellite service on a primary basis. The use of this service is intended for operation within national boundaries and is subject to agreement obtained under the procedure set forth in Article 14. In seeking such agreement, appropriate protection shall be afforded to services operating in accordance with the Table.
- 705 Different category of service: in the United States, the allocation of the band 890 942 MHz to the radiolocation service is on a primary basis (see No. 425) and is subject to agreement obtained under the procedure set forth in Article 14.
- 706 Different category of service: in Australia, the allocation of the band 890 942 MHz to the radiolocation service is on a primary basis (see No. 425).
- In Region 2, the band 902 928 MHz (centre frequency 915 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.
- 707A (Mob-87) Different category of service: in Chile, the band 903 905 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis and is subject to agreement obtained under the procedure set forth in Article 14.
- 708 (WARC-92) SUP
- The band 960 1 215 MHz is reserved on a worldwide basis for the use and development of airborne electronic aids to air navigation and any directly associated ground-based facilities.
- Use of the radionavigation-satellite service in the band 1 215 1 260 MHz shall be subject to the condition that no harmful interference is caused to the radionavigation service authorized under No. **712**.
- Additional allocation: in Afghanistan, Angola, Bahrain, Bangladesh, Cameroon, Chad, China, Ethiopia, Guinea, Guyana, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Libya, Malawi, Morocco, Mozambique, Nepal, Nigeria, Oman, Pakistan, the Philippines, Qatar, Saudi Arabia, Somalia, Sri Lanka, Sudan, Syria, Thailand, Togo, the United Arab Emirates and Yemen (P.D.R. of), the band 1 215 1 300 MHz is also allocated to the fixed and mobile services on a primary basis.

- Additional allocation: in Algeria, Austria, Bahrain, Belgium, Benin, Burundi, Cameroon, China, Denmark, the Federal Republic of Germany, France, Greece, India, Iran, Iraq, Kenya, Liechtenstein, Luxembourg, Mali, Mauritania, the Netherlands, Norway, Oman, Pakistan, Portugal, Qatar, Senegal, Somalia, Sri Lanka, Sudan, Sweden, Switzerland, Tanzania, Turkey, the United Arab Emirates and Yugoslavia, the band 1 215 1 300 MHz is also allocated to the radionavigation service on a primary basis.
- 712A (Mob-87) Additional allocation: in Cuba, the band 1 215 1 300 MHz is also allocated to the radionavigation service on a primary basis subject to the agreement obtained under the procedure set forth in Article 14.
- 713 In the bands 1 215 1 300 MHz, 3 100 3 300 MHz, 5 250 5 350 MHz, 8 550 8 650 MHz, 9 500 9 800 MHz and 13.4 14.0 GHz, radiolocation stations installed on spacecraft may also be employed for the earth exploration-satellite and space research services on a secondary basis.
- Additional allocation: in Canada and the United States, the bands 1 240 1 300 MHz and 1 350 1 370 MHz are also allocated to the aeronautical radionavigation service on a primary basis.
- 715 Additional allocation: in Indonesia, the band 1 300 1 350 MHz is also allocated to the fixed and mobile services on a primary basis.
- 716 Alternative allocation: in Ireland and the United Kingdom, the band 1 300 1 350 MHz is allocated to the radiolocation service on a primary basis.
- 717 The use of the bands 1 300 1 350 MHz, 2 700 2 900 MHz and 9 000 9 200 MHz by the aeronautical radionavigation service is restricted to ground-based radars and to associated airborne transponders, which transmit only on frequencies in these bands and only when actuated by radars operating in the same band.
- In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the spectral line observations of the radio astronomy service from harmful interference in the band 1 330 1 400 MHz. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- 719 **(WARC-92)** In Bulgaria, Czechoslovakia, the German Democratic Republic, Mongolia, Poland, Romania and the U.S.S.R., the existing installation of the radionavigation service may continue to operate in the band 1 350 1 400 MHz.
- The bands 1 370 1 400 MHz, 2 640 2 655 MHz, 4 950 4 990 MHz and 15.20 -15.35 GHz are also allocated to the space research (passive) and earth exploration-satellite (passive) services on a secondary basis.
- All emissions in the band 1 400 1 427 MHz are prohibited.

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- In the bands 1 400 1 727 MHz, 101 120 GHz and 197 220 GHz, passive research is being conducted by some countries in a program for the search for intentional emissions of extra-terrestrial origin.
- 722A (WARC-92) Use of the band 1 452 1 492 MHz by the broadcasting-satellite service, and by the broadcasting service, is limited to digital audio broadcasting and is subject to the provisions of Resolution 528 (WARC-92).
- (WARC-92) Different category of service: in Bangladesh, Botswana, Bulgaria, Burkina Faso, Colombia, Cuba, the Czech and Slovak Federal Republic, Denmark, Ecuador, Egypt, the Federal Republic of Germany, Greece, Hungary, Ireland, Italy, Jordan, Kenya, Malawi, Mozambique, Panama, Poland, Portugal, Spain, Sri Lanka, Swaziland, Sweden, the United Kingdom, Yemen, Yugoslavia and Zimbabwe, the allocation of the band 1 452 1 492 MHz to the broadcasting-satellite service and the broadcasting service is on a secondary basis until 1 April 2007.
- 722C (WARC-92) Alternative allocation: in the United States, the band 1 452 1 525 MHz is allocated to the fixed and mobile services on a primary basis (see also No.723).
- In Region 2, in Australia and Papua New Guinea, the use of the band 1 435 1 535 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service.
- 723A (Mob-87) Different category of service: in Cuba, the band 1 525 1 530 MHz is allocated to the aeronautical mobile service on a primary basis, under the conditions specified in No.723.
- (WARC-92) Additional allocation: in Belarus, the Russian Federation and Ukraine, the band 1 429 1 535 MHz is also allocated to the aeronautical mobile service on a primary basis exclusively for the purposes of aeronautical telemetry within the national territory. As of 1 April 2007, the use of the band 1 452 1 492 MHz is subject to agreement between the administrations concerned.
- (WARC-92) The use of the band 1 492 1 525 MHz by the mobile-satellite service is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). However, with the exception of the situation referred to in No.723, on a provisional basis, coordination of space stations of the mobile-satellite service with respect to terrestrial services is required only if the power flux-density produced at the Earth's surface exceeds the limits in No.2566. In respect of assignments operating in this band, the provisions of Section II, paragraph 2.2 of Resolution 46 (WARC-92) shall also be applied to geostationary transmitting space stations with respect to terrestrial stations.
- (WARC-92) Different category of service: in Afghanistan, Bahrain, Bulgaria, Cameroon, Czechoslovakia, Egypt, France, the German Democratic Republic, Iran, Iraq, Israel, Kuwait, Lebanon, Mongolia, Morocco, Oman, Poland, Qatar, Romania, Saudi Arabia, Syria, the United Arab Emirates, the U.S.S.R., Yemen and Yugoslavia, the allocation of the band 1 525 1 530 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 425).

- Additional allocation: in the U.S.S.R., the band 1 525 1 530 MHz is also allocated to the aeronautical mobile service on a primary basis.
- 726 (WARC-92) SUP
- (WARC-92) The bands 1 525 1 544 MHz, 1 545 1 559 MHz, 1 626.5 1 645.5 MHz and 1 646.5 1 660.5 MHz shall not be used for feeder links of any service. In exceptional circumstances, however, an earth station at a specified fixed point in any of the mobile-satellite services may be authorized by an administration to communicate via space stations using these bands.
- 726B (WARC-92) The use of the bands 1 525 1 530 MHz, 1 533 1 544 MHz, 1 626.5 1 631.5 MHz and 1 634.5 1 645.5 MHz by the land mobile-satellite service is limited to non-speech, low-bit-rate data transmissions.
- 726C (WARC-92) Additional allocation: in Argentina, Australia, Brazil, Canada, Malaysia, Mexico and the United States, the band 1 530 1 544 MHz is also allocated to the mobile-satellite (space-to-Earth) service, and the band 1 626.5 1 645.5 MHz is also allocated to the mobile-satellite (Earth-to-space) service, on a primary basis, subject to the following conditions: maritime mobile-satellite distress and safety communications shall have priority access and immediate availability over all other mobile-satellite communications operating under this provision. Communications of mobile-satellite system stations not participating in the global maritime distress and safety system (GMDSS) shall operate on a secondary basis to distress and safety communications of stations operating in the GMDSS. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services.
- (WARC-92) The use of the bands 1 525 1 559 MHz and 1 626.5 1 660.5 MHz by the mobile-satellite services are subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). In Regions 1 and 3 in the band 1 525 1 530 MHz, coordination of space stations of the mobile-satellite services with respect to terrestrial services is required only if the power flux-density produced at the Earth's surface exceeds the limits in No.2566. In respect of assignments operating in the band 1 525 1 530 MHz, the provisions of Section II, paragraph 2.2 of Resolution 46 (WARC-92) shall also be applied to geostationary transmitting space stations with respect to terrestrial stations.
- Additional allocation: in Afghanistan, Bahrain, Bangladesh, Chad, Congo, Egypt, Ethiopia, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Malta, Morocco, Niger, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sri Lanka, Sudan, Syria, Thailand, Togo, the United Arab Emirates, Yemen (P.D.R. of) and Zambia, the bands 1 540 1 645.5 MHz and 1 646.5 1 660 MHz are also allocated to the fixed service on a secondary basis.
- 727A (Mob-87) The use of the band 1 544 1 545 MHz by the mobile-satellite service (space-to-Earth) is limited to distress and safety communications (see Article **N 38**).

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- 728<sup>1</sup> (Mob-87) SUP
- 729 (Mob-87) Transmissions in the band 1 545 1 555 MHz from terrestrial aeronautical stations directly to aircraft stations, or between aircraft stations, in the aeronautical mobile (R) service are also authorized when such transmissions are used to extend or supplement the satellite-to-aircraft links.
- (Mob-87) Notwithstanding any other provision of the Radio Regulations relating to restrictions in the use of the bands allocated to the aeronautical mobile-satellite (R) service for public correspondence, the bands 1 545 1 555 MHz and 1 646.5 1 656.5 MHz may be authorized by administrations for public correspondence with aircraft earth stations. Such communications must cease immediately, if necessary, to permit transmission of messages with priorities 1 to 6 in Article 51.
- (WARC-92) Additional allocation: in Austria, Bulgaria, Cameroon, Czechoslovakia, the Federal Republic of Germany, France, the German Democratic Republic, Guinea, Hungary, Indonesia, Libya, Mali, Mongolia, Nigeria, Poland, Romania, Senegal, Spain, Tanzania and the U.S.S.R., the bands 1 550 1 645.5 MHz and 1 646.5 1 660 MHz are also allocated to the fixed service on a primary basis.
- 730A (Mob-87) In the bands 1 555 1 559 MHz and 1 656.5 1 660.5 MHz, administrations may also authorize aircraft earth stations and ship earth stations to communicate with space stations in the land mobile-satellite service (see Resolution 208 (Mob-87)).
- (WARC-92) Alternative allocation: in Australia, Canada and Mexico, the band 1 555 1 559 MHz is allocated to the mobile-satellite (space-to-Earth) service, the band 1 656.5 1 660 MHz is allocated to the mobile-satellite (Earth-to-space) service, and the band 1 660 1 660.5 MHz is allocated to the mobile-satellite (Earth-to-space) and the radio astronomy services, on a primary basis.
- (WARC-92) Alternative allocation: in Argentina and the United States, the band 1 555 1 559 MHz is allocated to the mobile-satellite (space-to-Earth) service, the band 1 656.5 1 660 MHz is allocated to the mobile-satellite (Earth-to-space) service, and the band 1 660 1 660.5 MHz is allocated to the mobile-satellite (Earth-to-space) and radio astronomy services, on a primary basis, subject to the following conditions: the aeronautical mobile-satellite (R) service shall have priority access and immediate availability over all other mobile-satellite communications within a network operating under this provision; mobile-satellite systems shall be interoperable with the aeronautical mobile-satellite (R) service; account shall be taken of the priority of safety-related communications in the other mobile-satellite services.
- 731 (Mob-87) *Alternative allocation:* in Sweden, the band 1 590 1 626.5 MHz is allocated to the aeronautical radionavigation service on a primary basis.
- 731A (WARC-92) SUP
- 731B (WARC-92) SUP

<sup>1.</sup> Note by the Secretary-General: This note has been renumbered 734B, to preserve the chronological order.

- 731C (WARC-92) SUP
- 731D (WARC-92) SUP
- (WARC-92) The use of the band 1 610 1 626.5 MHz by the mobile-satellite service (Earth-to-space) and by the radiodetermination-satellite service (Earth-to-space) is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). A mobile earth station operating in either of the services in this band shall not produce an e.i.r.p. density in excess of -15 dB(W/4 kHz) in the part of the band used by systems operating in accordance with the provisions of No.732, unless otherwise agreed by the affected administrations. In the part of the band where such systems are not operating, a value of -3 dB(W/4 kHz) is applicable. Stations of the mobile-satellite service shall not cause harmful interference to, or claim protection from, stations in the aeronautical radionavigation service, stations operating in accordance with the provisions of No.732 and stations in the fixed service operating in accordance with the provisions of No.730.
- 731F (WARC-92) The use of the band 1 613.8 1 626.5 MHz by the mobile-satellite service (space-to-Earth) is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92).
- The band 1 610 1 626.5 MHz is reserved on a worldwide basis for the use and development of airborne electronic aids to air navigation and any directly associated ground-based or satellite-borne facilities. Such satellite use is subject to agreement obtained under the procedure set forth in Article 14.
- 733 The bands 1 610 1 626.5 MHz, 5 000 5 250 MHz and 15.4 15.7 GHz are also allocated to the aeronautical mobile-satellite (R) service on a primary basis. Such use is subject to agreement obtained under the procedure set forth in Article 14.
- 733A (WARC-92) With respect to the radiodetermination-satellite and mobile-satellite services the provisions of No. 953 do not apply in the band 1 610 1 626.5 MHz.
- (Mob-87) Different category of service: in Angola, Australia, Burundi, Côte d'Ivoire, Ethiopia, India, the Islamic Republic of Iran, Israel, Italy, Jordan, Kenya, Lebanon, Liberia, Libya, Madagascar, Mali, Pakistan, Papua New Guinea, Senegal, Sudan, Swaziland, Syria, Tanzania, Thailand, Togo, Zaire and Zambia, the allocation of the band 1 610 1 626.5 MHz to the radiodetermination-satellite service (Earth-to-space) is on a primary basis (see No. 425), subject to agreement obtained under the procedure set forth in Article 14 with other countries not listed in this provision.
- 733C (Mob-87) *Different category of service:* in Venezuela, the allocation to the radiodetermination-satellite service in the band 1 610 1 626 MHz (Earth-to-space) is on a secondary basis.
- 733D (Mob-87) Alternative allocation: in Cuba, the band 1 610 1 626.5 MHz is allocated exclusively to the aeronautical radionavigation service on a primary basis.

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- 733E (WARC-92) Harmful interference shall not be caused to stations of the radio astronomy service using the band 1 610.6 1 613.8 MHz by stations of the radiodetermination-satellite and mobile-satellite services (No. 2904 applies).
- 733F (Mob-87) In Region 1, the bands 1 610 1 626.5 MHz (Earth-to-space) and 2 483.5 2 500 MHz (space-to-Earth) are also allocated to the radiodetermination-satellite service on a secondary basis.
- (WARC-92) In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the radio astronomy service in the band 1 610.6 1 613.8 MHz from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- 734A (Mob-87) Land earth stations and ship earth stations in the mobile-satellite services operating in the bands 1 631.5 1 634.5 MHz and 1 656.5 1 660 MHz shall not cause harmful interference to the stations in the fixed service operating in the countries listed in No. **730**.
- 734B (Mob-87) The use of the band 1 645.5 1 646.5 MHz by the mobile-satellite service (Earth-to-space) and for inter-satellite links is limited to distress and safety communications (See Article **N 38**).
- (Mob-87) Transmissions in the band 1 646.5 1 656.5 MHz from aircraft stations in the aeronautical mobile (R) service directly to terrestrial aeronautical stations, or between aircraft stations, are also authorized when such transmissions are used to extend or supplement the aircraft-to-satellite links.
- (WARC-92) In the band 1 675 1 710 MHz, stations in the mobile-satellite service shall not cause harmful interference to, nor constrain the development of, the meteorological-satellite and meteorological aids services (see Resolution 213 (WARC-92)) and the use of this band shall be subject to the provisions of Resolution 46 (WARC-92).
- In making assignments to stations of other services to which the band 1 660 1 670 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- Different category of service: in Afghanistan, Bahrain, Benin, Bulgaria, Cameroon, the Central African Republic, Chad, Congo, Cuba, Czechoslovakia, Egypt, Ethiopia, the German Democratic Republic, Hungary, India, Indonesia, Iran, Israel, Kenya, Kuwait, Lebanon, Malaysia, Mongolia, Oman, Pakistan, Poland, Qatar, Saudi Arabia, Singapore, Somalia, Sri Lanka, Syria, Thailand, Tunisia, Uganda, the United Arab Emirates, the U.S.S.R, Yemen A.R., Yemen (P.D.R. of) and Yugoslavia, the allocation of the band 1 660.5 1 668.4 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis until 1 January 1990 (see No. 425).
- Additional allocation: in Bangladesh, India, Indonesia, Nigeria, Pakistan, Sri Lanka and Thailand, the band 1 660.5 1 668.4 MHz is also allocated to the meteorological aids service on a secondary basis.

- In view of the successful detection by radio astronomers of two hydroxyl spectral lines in the region of 1 665 MHz and 1 667 MHz, administrations are urged to give all practicable protection in the band 1 660.5 1 668.4 MHz for future research in radio astronomy, particularly by eliminating air-to-ground transmissions in the meteorological aids service in the band 1 664.4 1 668.4 MHz as soon as practicable.
- Additional allocation: in Afghanistan, Costa Rica, Cuba, India, Iran, Malaysia, Pakistan, Singapore, Sri Lanka and Thailand, the band 1 690 1 700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
- 740A (WARC-92) The bands 1 670 1 675 MHz and 1 800 1 805 MHz are intended for use, on a worldwide basis, by administrations wishing to implement aeronautical public correspondence. The use of the band 1 670 1 675 MHz by stations in the systems for public correspondence with aircraft is limited to transmissions from aeronautical stations, and the use of the band 1 800 1 805 MHz is limited to transmissions from aircraft stations.
- 741 Different category of service: in Austria, Bahrain, Bulgaria, Congo, Czechoslovakia, Egypt, Ethiopia, the German Democratic Republic, Guinea, Hungary, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Mauritania, Mongolia, Oman, Poland, Qatar, Romania, Saudi Arabia, Somalia, Syria, Tanzania, the United Arab Emirates, the U.S.S.R., Yemen A.R., Yemen (P.D.R. of) and Yugoslavia, the allocation of the band 1 690 1 700 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. 425).
- Additional allocation: in Australia and Indonesia, the band 1 690 1 700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis.
- Additional allocation: in India, Indonesia, Japan and Thailand, the band 1 700 1 710 MHz is also allocated to the space research service (space-to-Earth) on a primary basis.
- 743A (WARC-92) SUP
- The band 1 718.8 1 722.2 MHz is also allocated to the radio astronomy service on a secondary basis for spectral line observations. In making assignments to stations of other services to which the band is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- Subject to agreement obtained under the procedure set forth in Article 14 and having particular regard to tropospheric scatter systems, the band 1 750 1 850 MHz may also be used for space operation (Earth-to-space) and space research (Earth-to-space) services in Region 2, in Afghanistan, Australia, India, Indonesia, Japan and Thailand.

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- 746 (WARC-92) Additional allocation: in Bulgaria, Cuba, Czechoslovakia, the German Democratic Republic, Mali, Mongolia, Poland, Romania and the U.S.S.R., the band 1 770-1 790 MHz is also allocated to the meteorological-satellite service on a primary basis, subject to agreement obtained under the procedure set forth in Article 14.
- (WARC-92) The bands 1 885 2 025 MHz and 2 110 2 200 MHz are intended for use, on a worldwide basis, by administrations wishing to implement the future public land mobile telecommunication systems (FPLMTS). Such use does not preclude the use of these bands by other services to which these bands are allocated. The bands should be made available for FPLMTS in accordance with Resolution 212 (WARC-92).
- (WARC-92) The use of the bands 1 970 2 010 MHz and 2 160 2 200 MHz by the mobile-satellite service shall not commence before 1 January 2005 and is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). In the band 2 160 2 200 MHz, coordination of space stations of the mobile-satellite service with respect to terrestrial services is required only if the power flux-density produced at the Earth's surface exceeds the limits in No.2566. In respect of assignments operating in this band, the provisions of Section II, paragraph 2.2 of Resolution 46 (WARC-92) shall also be applied to geostationary transmitting space stations with respect to terrestrial stations.
- 746C (WARC-92) In the United States of America, the use of the bands 1 970 2 010 MHz and 2 160 2 200 MHz by the mobile-satellite service shall not commence before 1 January 1996.
- 747 (WARC-92) SUP
- 747A (WARC-92) In making assignments to the mobile service in the bands 2 025 2 110 MHz and 2 200 2 290 MHz, administrations shall take into account Resolution 211 (WARC-92).
- 748 (WARC-92) SUP
- 749 (WARC-92) SUP
- 750 **(WARC-92)** SUP
- (WARC-92) Administrations are urged to take all practicable measures to ensure that space-to-space transmissions between two or more non-geostationary satellites, in the space research, space operations and Earth exploration-satellite services in the bands 2 025 2 110 MHz and 2 200 2 290 MHz, shall not impose any constraints on Earth-to-space, space-to-Earth and other space-to-space transmissions of those services and in those bands between geostationary and non-geostationary satellites.

- (WARC-92) Additional allocation: in India and the United States, the band 2 310 2 360 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial sound broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to the provisions of Resolution 528 (WARC-92).
- (WARC-92) In Australia, Papua New Guinea and the United States, the use of the band 2 300 2 390 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services. In Canada, the use of the band 2 300 2 483.5 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services.
- 751A (WARC-92) In France, the use of the band 2 310 2 360 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service.
- (WARC-92) Space stations of the broadcasting-satellite service in the band 2 310 2 360 MHz operating in accordance with No. 750B that may affect the services to which this band is allocated in other countries shall be coordinated and notified in accordance with Resolution 33 (WARC-79). Complementary terrestrial broadcasting stations shall be subject to bilateral coordination with neighbouring countries prior to their bringing into use.
- The band 2 400 2 500 MHz (centre frequency 2 450 MHz) is designated for industrial, scientific and medical (ISM) applications. Radio services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.
- (WARC-92) Different category of service: in France, the band 2 450 2 500 MHz is allocated on a primary basis to the radiolocation service (see No. 425). Such use is subject to agreement with the administrations having services operating or planned to operate in accordance with the Table of Frequency Allocations, which may be affected.
- 753A (Mob-87) In respect of the radiodetermination-satellite service in the band 2 483.5 2 500 MHz, the provisions of No. **953** do not apply.
- 753B (Mob-87) In Region 1, in countries other than those listed in No.753C, harmful interference shall not be caused to, or protection shall not be claimed from, stations of the radiolocation service by stations of the radiodetermination-satellite service.
- 753C (WARC-92) Different category of service: in Angola, Australia, Bangladesh, Burundi, China, Côte d'Ivoire, Ethiopia, India, the Islamic Republic of Iran, Israel, Italy, Jordan, Kenya, Lebanon, Liberia, Libya, Madagascar, Mali, Pakistan, Papua New Guinea, Senegal, Sudan, Swaziland, Syria, Tanzania, Thailand, Togo, Zaire and Zambia, the allocation of the band 2 483.5 2 500 MHz to the radiodetermination-satellite service (space-to-Earth) is on a primary basis (see No. 425) subject to agreement obtained under the procedure of Article 14 with other countries not listed in this provision.

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- 753D (Mob-87) Alternative allocation: in Cuba, the band 2 483.5 2 500 MHz is allocated only to the fixed, mobile and radiolocation services on a primary basis.
- 753E (WARC-92) SUP
- 753F (WARC-92) The use of the band 2 483.5 2 500 MHz by the mobile-satellite and the radiodetermination-satellite services is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). Coordination of space stations of the mobile-satellite and radiodetermination-satellite services with respect to terrestrial services is required only if the power flux-density produced at the Earth's surface exceeds the limits in No. 2566. In respect of assignments operating in this band, the provisions of Section II, paragraph 2.2 of Resolution 46 (WARC-92) shall also be applied to geostationary transmitting space stations with respect to terrestrial stations.
- (WARC-92) Subject to agreement obtained under the procedure set forth in Article 14, the band 2 520 2 535 MHz (until 1 January 2005, the band 2 500 2 535 MHz) may also be used for the mobile-satellite (space-to-Earth), except aeronautical mobile-satellite, service for operation limited to within national boundaries. The coordination and notification procedures set forth in Resolution 46 (WARC-92) apply. However, coordination of space stations of the mobile-satellite service with respect to terrestrial services is required only if the power flux-density produced by the station exceeds the limits in No. 2566.
- 754A (MOB-87) Additional allocation: subject to agreement obtained under the procedure set forth in Article 14, the band 2 500 2 516.5 MHz may also be used in India, the Islamic Republic of Iran, Papua New Guinea and Thailand for the radiodetermination-satellite service (space-to-Earth) for operation limited to within national boundaries.
- (WARC-92) Additional allocation: in France, the band 2 500 2 550 MHz is also allocated to the radiolocation service on a primary basis. Such use is subject to agreement with the administrations having services operating or planned to operate in accordance with the Table which may be affected.
- Additional allocation: in Canada, the band 2 500 2 550 MHz is also allocated to the radiolocation service on a primary basis.
- 755A (WARC-92) In the band 2 500 2 520 MHz, the power flux-density at the surface of the Earth from space stations operating in the mobile-satellite (space-to-Earth) service shall not exceed -152 dB(W/m²/4 kHz) in Argentina, unless otherwise agreed by the administrations concerned.
- Additional allocation: in the United Kingdom, the band 2 500 2 600 MHz is also allocated to the radiolocation service on a secondary basis.
- (WARC-92) The use of the band 2 520 2 670 MHz by the broadcasting-satellite service is limited to national and regional systems for community reception, and such use shall be subject to agreement obtained under the procedure set forth in Article 14. The power flux-density at the Earth's surface shall not exceed the values given in Nos. 2561 to 2564.

- 757A (WARC-92) Additional allocation: in Bangladesh, Belarus, China, India, Japan, the Republic of Korea, Pakistan, the Russian Federation, Singapore, Sri Lanka, Thailand and Ukraine, the band 2 535 2 655 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to provisions of Resolution 528 (WARC-92). The provisions of Nos. 757 and 2561 to 2564 do not apply to this additional allocation.
- 758 **(WARC-92)** Alternative allocation: in the Federal Republic of Germany and Greece, the band 2 520 2 670 MHz is allocated to the fixed service on a primary basis.
- 759 Alternative allocation: in Bulgaria and the U.S.S.R., the band 2 500 2 690 MHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
- In the design of systems in the broadcasting-satellite service in the bands between 2 500 MHz and 2 690 MHz, administrations are urged to take all necessary steps to protect the radio astronomy service in the band 2 690 2 700 MHz.
- (WARC-92) The allocation of the frequency band 2 500 2 520 MHz to the mobile-satellite service (space-to-Earth) shall be effective on 1 January 2005 and is subject to the application of the coordination and notification procedures set forth in Resolution 46 (WARC-92). Coordination of space stations of the mobile-satellite service with respect to terrestrial services is required only if the power flux-density produced at the Earth's surface exceeds the limits in No.2566. In respect of assignments operating in this band, the provisions of Section II, paragraph 2.2 of Resolution 46 (WARC-92) shall also be applied to geostationary transmitting space stations with respect to terrestrial stations.
- The use of the bands 2 500 2690 MHz in Region 2 and 2 500 2 535 MHz and 2 655 2 690 MHz in Region 3 by the fixed-satellite service is limited to national and regional systems; such use shall be subject to agreement obtained under the procedure set forth in Article 14, giving particular attention to the broadcasting-satellite service in Region 1. In the direction space-to-Earth, the power flux-density at the Earth's surface shall not exceed the values given in Nos. 2561 to 2564.
- Administrations shall make all practicable efforts to avoid developing new tropospheric scatter systems in the band 2 500 2 690 MHz.
- Subject to agreement obtained under the procedure set forth in Article 14, the band 2 500 2 690 MHz may be used for tropospheric scatter systems in Region 1.
- When planning new tropospheric scatter radio-relay links in the band 2 500 2 690 MHz, all possible measures shall be taken to avoid directing the antennae of these links toward the geostationary-satellite orbit.

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- (WARC-92) The allocation of the frequency band 2 670 2 690 MHz to the mobile-satellite service shall be effective from 1 January 2005. When introducing mobile-satellite systems in this band, administrations shall take all necessary steps to protect the satellite systems operating in this band prior to 3 March 1992. The coordination of mobile-satellite systems in the band shall be in accordance with Resolution 46 (WARC-92).
- In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference in the band 2 655 2 690 MHz. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- (WARC-92) Subject to agreement obtained under the procedure set forth in Article 14, the band 2 655 2 670 MHz (until 1 January 2005, the band 2 655 2 690 MHz) may also be used for the mobile-satellite (Earth-to-space), except aeronautical mobile-satellite, service for operation limited to within national boundaries. The coordination and notification procedures set forth in Resolution 46 (WARC-92) apply.
- Additional allocation: in Austria and the Federal Republic of Germany, the band 2 690 2 695 MHz is also allocated to the fixed service on a primary basis. Such use is limited to equipment in operation by 1 January 1985.
- All emissions in the band 2 690 2 700 MHz are prohibited, except those provided for by Nos.767 and 769.
- (WARC-92) Additional allocation: in Afghanistan, Bahrain, Brunei Darussalam, Bulgaria, Cameroon, the Central African Republic, Congo, Côte d'Ivoire, Cuba, Czechoslovakia, Egypt, Ethiopia, Gabon, the German Democratic Republic, Guinea, Guinea-Bissau, Iran, Iraq, Israel, Jordan, Lebanon, Malawi, Malaysia, Mali, Mauritania, Mongolia, Morocco, Nigeria, Oman, Pakistan, the Philippines, Poland, Qatar, Romania, Saudi Arabia, Singapore, Somalia, Sri Lanka, Syria, Thailand, Tunisia, the United Arab Emirates, the U.S.S.R., Yemen, Yugoslavia, Zaire and Zambia, the band 2 690 2 700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985.
- In the band 2 700 2 900 MHz, ground-based radars used for meteorological purposes are authorized to operate on a basis of equality with stations of the aeronautical radionavigation service.
- 771 Additional allocation: in Canada, the band 2 850 2 900 MHz is also allocated to the maritime radionavigation service, on a primary basis, for use by shore-based radars.
- 772 (Mob-87) In the band 2 900 3 100 MHz, the use of the shipborne interrogator-transponder system (SIT) shall be confined to the sub-band 2 930 2 950 MHz.
- The use of the band 2 900 3 100 MHz by the aeronautical radionavigation service is limited to ground-based radars.

- 774 (Mob-87) SUP
- 775 (Mob-87) SUP
- (Mob-87) In the bands 2 900 3 100 MHz and 9 300 9 500 MHz, the response from radar transponders shall not be capable of being confused with the response from radar beacons (racons) and shall not cause interference to ship or aeronautical radars in the radionavigation service, having regard, however, to No. 347 of these Regulations.
- 776 (Mob-87) SUP
- 777 (WARC-92) Additional allocation: in Bulgaria, Canada, Cuba, Czechoslovakia, the German Democratic Republic, Mongolia, Poland, Romania and the U.S.S.R., the band 3 100 3 300 MHz is also allocated to the radionavigation service on a primary basis.
- In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the spectral line observations of the radio astronomy service from harmful interference in the bands 3 260 3 267 MHz, 3 332 3 339 MHz, 3 345.8 3 352.5 MHz and 4 825 4 835 MHz. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- (WARC-92) Additional allocation: in Afghanistan, Bahrain, Bangladesh, Brunei Darussalam, China, Congo, the Democratic People's Republic of Korea, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Libya, Malaysia, Oman, Pakistan, Qatar, Saudi Arabia, Singapore, Sri Lanka, Syria, Thailand, the United Arab Emirates and Yemen, the band 3 300 3 400 MHz is also allocated to the fixed and mobile services on a primary basis. The countries bordering the Mediterranean shall not claim protection for their fixed and mobile services from the radiolocation service.
- (WARC-92) Additional allocation: in Bulgaria, Cuba, Czechoslovakia, the German Democratic Republic, Mongolia, Poland, Romania and the U.S.S.R., the band 3 300 3 400 MHz is also allocated to the radionavigation service on a primary basis.
- 781 Additional allocation: in the Federal Republic of Germany, Israel, Nigeria and the United Kingdom, the band 3 400 3 475 MHz is also allocated to the amateur service on a secondary basis.
- 782 **(WARC-92)** SUP
- 783 Different category of service: in Indonesia, Japan, Pakistan and Thailand, the allocation of the band 3 400 3 500 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 425).

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- In Regions 2 and 3, in the band 3 400 3 600 MHz, the radiolocation service is allocated on a primary basis. However, all administrations operating radiolocation systems in this band are urged to cease operations by 1985. Thereafter, administrations shall take all practicable steps to protect the fixed-satellite service and coordination requirements shall not be imposed on the fixed-satellite service.
- In Denmark, Norway and the United Kingdom, the fixed, radiolocation and fixed-satellite services operate on a basis of equality of rights in the band 3 400 3 600 MHz. However, these administrations operating radiolocation systems in this band are urged to cease operations by 1985. After this date, these administrations shall take all practicable steps to protect the fixed-satellite service and coordination requirements shall not be imposed on the fixed-satellite service.
- 786 In Japan, in the band 3 620 3 700 MHz, the radiolocation service is excluded.
- 787 Additional allocation: in New Zealand, the band 3 700 3 770 MHz is also allocated to the radiolocation service on a secondary basis.
- Additional allocation: in Denmark, the Federal Republic of Germany, Norway and Sweden, the band 4 200 4 210 MHz is also allocated to the fixed service on a secondary basis.
- Use of the band 4 200 4 400 MHz by the aeronautical radionavigation service is reserved exclusively for radio altimeters installed on board aircraft and for the associated transponders on the ground. However, passive sensing in the earth exploration-satellite and space research services may be authorized in this band on a secondary basis (no protection is provided by the radio altimeters).
- Additional allocation: in China, Iran, Libya, the Philippines and Sri Lanka, the band 4 200 4 400 MHz is also allocated to the fixed service on a secondary basis.
- The standard frequency and time signal-satellite service may be authorized to use the frequency 4 202 MHz for space-to-Earth transmissions and the frequency 6 427 MHz for Earth-to-space transmissions. Such transmissions shall be confined within the limits of ± 2 MHz of these frequencies and shall be subject to agreement obtained under the procedure set forth in Article 14.
- 792 (ORB-88) SUP
- 792A (ORB-88) The use of the bands 4 500 4 800 MHz, 6 725 7 025 MHz, 10.7 10.95 GHz, 11.2 11.45 GHz and 12.75 13.25 GHz by the fixed-satellite service shall be in accordance with the provisions of Appendix 30B.
- In the bands 4 825 4 835 MHz and 4 950 4 990 MHz, the allocation to the mobile service is restricted to the mobile, except aeronautical mobile, service.

- Different category of service: in Argentina, Australia and Canada, the allocation of the bands
  4 825 4 835 MHz and 4 950 4 990 MHz to the radio astronomy service is on a primary basis (see
  No. 425). In making assignments to stations of other services to which these bands are allocated,
  administrations are urged to take all practicable steps to protect the radio astronomy service from harmful
  interference. Emissions from space or airborne stations can be particularly serious sources of interference
  to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- In making assignments to stations of other services to which the band 4 990 5 000 MHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- The band 5 000 5 250 MHz is to be used for the operation of the international standard system (microwave landing system) for precision approach and landing. The requirements of this system shall take precedence over other uses of this band.
- The bands 5 000 5 250 MHz and 15.4 15.7 GHz are also allocated to the fixed-satellite service and the inter-satellite service, for connection between one or more earth stations at specified fixed points on the Earth and space stations, when these services are used in conjunction with the aeronautical radionavigation and/or aeronautical mobile (R) service. Such use shall be subject to agreement obtained under the procedure set forth in Article 14.
- (Mob-87) Additional allocation: in the countries listed in Nos. 733B and 753C and subject to agreement obtained under the procedure set forth in Article 14, the band 5 150 5 216 MHz is also allocated to the radiodetermination-satellite service (space-to-Earth) on a primary basis. In Region 2, the band is also allocated to the radiodetermination-satellite service (space-to-Earth) on a primary basis. In Regions 1 and 3, except those countries listed in Nos. 733B and 753C, the band is also allocated to the radiodetermination-satellite service (space-to-Earth) on a secondary basis. The use by the radiodetermination-satellite service is limited to feeder links in conjunction with the radiodetermination satellite service operating in the bands 1 610 1 626.5 MHz and/or 2 483.5 2 500 MHz. The total power flux-density at the Earth's surface shall in no case exceed 159 dBW/m² in any 4 kHz band for all angles of arrival.
- (WARC-92) Additional allocation: in Austria, Belgium, Denmark, the Federal Republic of Germany, Finland, France, Greece, Israel, Italy, Japan, Jordan, Lebanon, Liechtenstein, Luxembourg, Malta, Morocco, the Netherlands, Norway, Pakistan, Portugal, Spain, Sweden, Switzerland, Syria, Tunisia and the United Kingdom, the band 5 150 5 250 MHz is also allocated to the mobile service, on a primary basis, subject to the agreement obtained under the procedure set forth in Article 14.
- (WARC-92) Additional allocation: in Austria, Bulgaria, Czechoslovakia, the German Democratic Republic, Libya, Mongolia, Poland, Romania and the U.S.S.R., the band 5 250 5 350 MHz is also allocated to the radionavigation service on a primary basis.

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- The use of the band 5 350 5 470 MHz by the aeronautical radionavigation service is limited to airborne radars and associated airborne beacons.
- (WARC-92) Additional allocation: in Afghanistan, Austria, Bulgaria, Czechoslovakia, the German Democratic Republic, Iran, Mongolia, Poland, Romania and the U.S.S.R., the band 5 470 5 650 MHz is also allocated to the aeronautical radionavigation service on a primary basis.
- Additional allocation: in the United Kingdom, the band 5 470 5 850 MHz is also allocated to the land mobile service on a secondary basis. The power limits specified in Nos. **2502**, **2505**, **2506** and **2507** shall apply in the band 5 725 5 850 MHz.
- Between 5 600 MHz and 5 650 MHz, ground-based radars used for meteorological purposes are authorized to operate on a basis of equality with stations of the maritime radionavigation service.
- (WARC-92) Additional allocation: in Afghanistan, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, the Central African Republic, Chad, China, Congo, the Democratic People's Republic of Korea, Egypt, Gabon, Guinea, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Libya, Madagascar, Malawi, Malaysia, Niger, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Republic of Korea, Saudi Arabia, Singapore, Sri Lanka, Swaziland, Syria, Tanzania, Thailand, the United Arab Emirates and Yemen, the band 5 650 5 850 MHz is also allocated to the fixed and mobile services on a primary basis.
- (WARC-92) Different category of service: in Bulgaria, Cuba, Czechoslovakia, the German Democratic Republic, Mongolia, Poland and the U.S.S.R., the allocation of the band 5 670 5 725 MHz to the space research service is on a primary basis (see No. 425).
- Additional allocation: in Bulgaria, Cuba, Czechoslovakia, the German Democratic Republic, Hungary, Mongolia, Poland and the U.S.S.R., the band 5 670 5 850 MHz is also allocated to the fixed service on a primary basis.
- The band 5 725 5 875 MHz (centre frequency 5 800 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.
- Additional allocation: in Cameroon and the Federal Republic of Germany, the band 5 755 5 850 MHz is also allocated to the fixed service on a primary basis.
- The band 5 830 5 850 MHz is also allocated to the amateur-satellite service (space-to-Earth) on a secondary basis.

- In the band 6 425 7 075 MHz, passive microwave sensor measurements are carried out over the oceans. In the band 7 075 7 250 MHz, passive microwave sensor measurements are carried out. Administrations should bear in mind the needs of the earth exploration-satellite (passive) and space research (passive) services in their future planning of this band.
- Subject to agreement obtained under the procedure set forth in Article 14, in Region 2, the band 7 125 7 155 MHz may be used for Earth-to-space transmissions in the space operation service.
- Subject to agreement obtained under the procedure set forth in Article 14, the band 7 145 7 235 MHz may be used for Earth-to-space transmissions in the space research service. The use of the band 7 145 7 190 MHz is restricted to deep space; no emissions to deep space shall be effected in the band 7 190 7 235 MHz.
- The bands 7 250 7 375 MHz (space-to-Earth) and 7 900 8 025 MHz (Earth-to-space) may also be used by the mobile-satellite service. The use of these bands by this service shall be subject to agreement obtained under the procedure set forth in Article 14.
- In the band 8 025 8 400 MHz, the power flux-density limits specified in No. **2570** shall apply in Regions 1 and 3 to the earth exploration-satellite service.
- 814 In Region 2, aircraft stations are not permitted to transmit in the band 8 025 8 400 MHz.
- Subject to agreement obtained under the procedure set forth in Article 14, the band 8 025 8 400 MHz may be used for the earth exploration-satellite service (space-to-Earth) in Bangladesh, Benin, Cameroon, the Central African Republic, China, Côte d'Ivoire, Egypt, France, Guinea, India, Iran, Israel, Italy, Japan, Kenya, Libya, Mali, Niger, Pakistan, Senegal, Somalia, Sudan, Sweden, Tanzania, Upper Volta, Zaire and Zambia, on a primary basis.
- In the space research service, the use of the band 8 400 8 450 MHz is limited to deep space.
- 817 Different category of service: in Belgium, Israel, Luxembourg, Malaysia, Singapore and Sri Lanka, the allocation of the band 8 400 8 500 MHz to the space research service is on a secondary basis (see No. 424).
- Alternative allocation: in the United Kingdom, the band 8 400 8 500 MHz is allocated to the radiolocation and space research services on a primary basis.
- (WARC-92) Additional allocation: in Bahrain, Bangladesh, Brunei Darussalam, Burundi, Cameroon, Chad, China, Congo, Costa Rica, the Democratic People's Republic of Korea, Egypt, Gabon, Guinea, Guyana, Indonesia, Iran, Iraq, Israel, Jamaica, Jordan, Kuwait, Lebanon, Libya, Malaysia, Mali, Mauritania, Morocco, Nepal, Niger, Nigeria, Oman, Pakistan, Qatar, Saudi Arabia, Senegal, Singapore, Somalia, Sri Lanka, Swaziland, Syria, Tanzania, Thailand, Togo, Tunisia, the United Arab Emirates and Yemen, the band 8 500 8 750 MHz is also allocated to the fixed and mobile services on a primary basis.

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- Additional allocation: in Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Mongolia, Poland, Romania and the U.S.S.R., the band 8 500 8 750 MHz is also allocated to the land mobile and radionavigation services on a primary basis.
- The use of the band 8 750 8 850 MHz by the aeronautical radionavigation service is limited to airborne Doppler navigation aids on a centre frequency of 8 800 MHz.
- Additional allocation: in Algeria, Bahrain, Belgium, China, the Federal Republic of Germany, France, Greece, Indonesia, Iran, Libya, the Netherlands, Qatar, Sudan, Thailand and the United Arab Emirates, the bands 8 825 8 850 MHz and 9 000 9 200 MHz are also allocated to the maritime radionavigation service, on a primary basis for use by shore-based radars only.
- 823 In the bands 8 850 9 000 MHz and 9 200 9 225 MHz, the maritime radionavigation service is limited to shore-based radars.
- Additional allocation: in Austria, Bulgaria, Cuba, Czechoslovakia, the German Democratic Republic, Hungary, Mongolia, Poland, Romania, and the U.S.S.R., the bands 8 850 9 000 MHz and 9 200 9 300 MHz are also allocated to the radionavigation service on a primary basis.
- In the band 9 200 9 500 MHz, search and rescue transponders (SART) may be used, having due regard to the appropriate CCIR recommendations (see also Article **N 38**).
- The use of the band 9 300 9 500 MHz by the aeronautical radionavigation service is limited to airborne weather radars and ground-based radars. In addition, ground-based radar beacons in the aeronautical radionavigation service are permitted in the band 9 300 9 320 MHz on condition that harmful interference is not caused to the maritime radionavigation service. In the band 9 300 9 500 MHz, ground-based radars used for meteorological purposes have priority over other radiolocation devices.
- 825A (Mob-87) In the band 9 300 9 320 MHz in the radionavigation service, the use of shipborne radars, other than those existing on 1 January 1976, is not permitted until 1 January 2001.
- (WARC-92) Different category of service: in Afghanistan, Algeria, Austria, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Egypt, Ethiopia, Guyana, India, Indonesia, Iran, Iraq, Israel, Jamaica, Japan, Jordan, Kuwait, Lebanon, Liberia, Malaysia, Nigeria, Oman, Pakistan, Qatar, the Republic of Korea, Saudi Arabia, Singapore, Somalia, Sri Lanka, Sudan, Sweden, Thailand, Trinidad and Tobago, the United Arab Emirates and Yemen, the allocation of the band 9 800 10 000 MHz to the fixed service is on a primary basis (see No. 425).
- Additional allocation: in Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Mongolia, Poland, Romania and the U.S.S.R., the band 9 800 10 000 MHz is also allocated to the radionavigation service on a primary basis.

- The band 9 975 10 025 MHz is also allocated to the meteorological-satellite service on a secondary basis for use by weather radars.
- Additional allocation: in Costa Rica, Ecuador, Guatemala and Honduras, the band 10 10 45 GHz is also allocated to the fixed and mobile services on a primary basis.
- (WARC-92) Additional allocation: in Angola, China, the Democratic People's Republic of Korea, Ecuador, the Federal Republic of Germany, Japan, Kenya, Morocco, Nigeria, Oman, Spain, Sweden, Tanzania and Thailand, the band 10.45 10.5 GHz is also allocated to the fixed and mobile services on a primary basis.
- In the band 10.6 10.68 GHz, stations of the fixed and mobile, except aeronautical mobile, services shall be limited to a maximum equivalent isotropically radiated power of 40 dBW, and the power delivered to the antenna shall not exceed -3 dBW. These limits may be exceeded subject to agreement obtained under the procedure set forth in Article 14. However, in Afghanistan, Bahrain, Bangladesh, China, Finland, India, Indonesia, Iran, Iraq, Japan, Kuwait, Lebanon, Nigeria, Pakistan, the Philippines, Qatar, Saudi Arabia, Syria, the United Arab Emirates and the U.S.S.R., the restrictions on the fixed and mobile, except aeronautical mobile, services are not applicable.
- In making assignments to stations of other services to which the band 10.6 10.68 GHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy services from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- All emissions in the band 10.68 10.7 GHz are prohibited, except for those provided for by No.834.
- (WARC-92) Additional allocation: in Bahrain, Bulgaria, Cameroon, China, Colombia, Costa Rica, Cuba, Czechoslovakia, the Democratic People's Republic of Korea, Ecuador, Egypt, the German Democratic Republic, Iran, Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Mongolia, Pakistan, Poland, Qatar, the Republic of Korea, Romania, Saudi Arabia, the United Arab Emirates, the U.S.S.R., Yemen and Yugoslavia, the band 10.68 10.7 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985.
- In Region 1, the use of the band 10.7 11.7 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service.
- 836 (ORB-85) In Region 2, in the band 11.7 12.2 GHz, transponders on space stations in the fixed-satellite service may be used additionally for transmissions in the broadcasting-satellite service, provided that such transmissions do not have a maximum e.i.r.p. greater than 53 dBW per television channel and do not cause greater interference or require more protection from interference than the coordinated fixed-satellite service frequency assignments. With respect to the space services, this band shall be used principally for the fixed-satellite service.

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- 837 (ORB-85) *Different category of service:* in Canada, Mexico and the United States, the allocation of the band 11.7 12.1 GHz to the fixed service is on a secondary basis (see No.**424**).
- 838 In the band 11.7 12.5 GHz in Regions 1 and 3, the fixed, fixed-satellite, mobile, except aeronautical mobile, and broadcasting services, in accordance with their respective allocations, shall not cause harmful interference to broadcasting-satellite stations operating in accordance with the provisions of Appendix 30.1
- (ORB 88) The use of the band 11.7 12.2 GHz by the fixed-satellite service in Region 2 and 12.2 12.7 GHz by the broadcasting-satellite service in Region 2 is limited to national and subregional systems. The use of the band 11.7 12.2 GHz by the fixed-satellite service in Region 2 is subject to previous agreement between the administrations concerned and those having services, operating or planned to operate in accordance with the Table, which may be affected (see Articles 11, 13 and 14). For the use of the band 12.2 12.7 GHz by the broadcasting-satellite service in Region 2, see Article 15.
- 840 (ORB-85) SUP
- 841 (ORB-85) SUP
- (ORB-85) Additional allocation: the band 12.1 12.2 GHz in Brazil and Peru is also allocated to the fixed service on a primary basis.
- 843 (ORB-85) SUP
- (ORB-85) In Region 2, in the band 12.2 12.7 GHz, existing and future terrestrial radiocommunication services shall not cause harmful interference to the space services operating in conformity with the Broadcasting-Satellite Plan for Region 2 contained in Appendix 30 (ORB-85).
- In Region 3, the band 12.2 12.5 GHz is also allocated to the fixed-satellite (space-to-Earth) service limited to national and subregional systems. The power flux-density limits in No. 2574 shall apply to this frequency band. The introduction of the service in relation to the broadcasting-satellite service in Region 1 shall follow the procedures specified in Article 7 of Appendix 30,<sup>2</sup> with the applicable frequency band extended to cover 12.2 12.5 GHz.
- (ORB-85) In Region 2, in the band 12.2 12.7 GHz, assignments to stations of the broadcasting-satellite service in the Plan for Region 2 contained in Appendix 30 (ORB-85) may also be used for transmissions in the fixed-satellite service (space-to-Earth), provided that such transmissions do not cause more interference or require more protection from interference than the broadcasting-satellite service transmissions operating in conformity with the Region 2 Plan. With respect to the space services, this band shall be used principally for the broadcasting-satellite service.
  - 1. Note by the Secretary-General: Appendix 30 has been revised by the First Session of the World Administrative Radio Conference on the Use of the Geostationary-Satellite Orbit and the Planning of Space Services Utilizing It, Geneva, 1985, and becomes Appendix 30 (ORB-85).
  - 2. Note by the Secretary-General: See Note relating to No. 838.

- (ORB-85) The broadcasting-satellite service in the band 12.5 12.75 GHz in Region 3 is limited to community reception with a power flux-density not exceeding -111 dB(W/m²) as defined in Annex 5 of Appendix 30 (ORB-85). See also Resolution 34.
- Additional allocation: in Algeria, Angola, Bahrain, Cameroon, the Central African Republic, Chad, Congo, Côte d'Ivoire, Egypt, Ethiopia, Gabon, Ghana, Guinea, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Libya, Madagascar, Mali, Mongolia, Morocco, Niger, Nigeria, Qatar, Saudi Arabia, Senegal, Somalia, Sudan, Syria, Togo, the United Arab Emirates, Yemen (P.D.R. of) and Zaire, the band 12.5 12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
- Additional allocation: in Belgium, Denmark, the Federal Republic of Germany, Finland, France, Greece, Liechtenstein, Luxembourg, Monaco, the Netherlands, Norway, Portugal, Romania, Spain, Sweden, Switzerland, Tanzania, Tunisia, Uganda and Yugoslavia, the band 12.5 12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis.
- (WARC-92) Additional allocation: in Austria, Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland and the U.S.S.R., the band 12.5 12.75 GHz is also allocated to the fixed service and the mobile, except aeronautical mobile, service on a primary basis. However, stations in these services shall not cause harmful interference to fixed-satellite service earth stations of countries in Region 1 other than those mentioned in this footnote. Coordination of these earth stations is not required with stations of the fixed and mobile services of the countries mentioned in this footnote. The power flux-density limit at the Earth's surface given in No. 2574 for the fixed-satellite service shall apply on the territory of the countries mentioned in this footnote.
- The use of the band 13.25 13.4 GHz by the aeronautical radionavigation service is limited to Doppler navigation aids.
- Subject to agreement obtained under the procedure set forth in Article 14, the band 13.25 13.4 GHz may also be used in the space research service (Earth-to-space) on a secondary basis.
- Additional allocation: in Bangladesh, India and Pakistan, the band 13.25 14 GHz is also allocated to the fixed service on a primary basis.
- (WARC-92) Additional allocation: in Afghanistan, Algeria, Angola, Bahrain, Brunei Darussalam, Cameroon, Chad, Egypt, Finland, Gabon, Guinea, Indonesia, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Madagascar, Malawi, Malaysia, Mali, Malta, Mauritania, Morocco, Niger, Nigeria, Pakistan, Qatar, the Republic of Korea, Saudi Arabia, Senegal, Singapore, Sri Lanka, Sudan, Sweden, Syria, Thailand, Tunisia and the United Arab Emirates, the band 13.4 14 GHz is also allocated to the fixed and mobile services on a primary basis.
- (WARC-92) Additional allocation: in Austria, Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Japan, Mongolia, Romania, the United Kingdom and the U.S.S.R., the band 13.4 14 GHz is also allocated to the radionavigation service on a primary basis.

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- (WARC-92) In the band 13.75 14 GHz, the e.i.r.p. of any emission from an earth station in the fixed-satellite service shall be at least 68 dBW, and should not exceed 85 dBW, with a minimum antenna diameter of 4.5 metres. In addition the e.i.r.p., averaged over one second, radiated by a station in the radiolocation and radionavigation services toward the geostationary-satellite orbit shall not exceed 59 dBW. These values shall apply subject to review by the CCIR and until they are changed by a future competent world administrative radio conference (see Resolution 112 (WARC-92)).
- (WARC-92) In the band 13.75 14 GHz, geostationary space stations in the space research service, for which information for advance publication has been received by the IFRB prior to 31 January 1992, shall operate on an equal basis with stations in the fixed-satellite service; after that date, new geostationary space stations in the space research service will operate on a secondary basis. Until 1 January 2000, stations in the fixed-satellite service shall not cause harmful interference to non-geostationary space stations in the space research and Earth exploration-satellite services; after that date, these non-geostationary space stations will operate on a secondary basis in relation to the fixed-satellite service.
- The use of the band 14 14.3 GHz by the radionavigation service shall be such as to provide sufficient protection to space stations of the fixed satellite service (see Recommendation **708**).
- (WARC-92) Additional allocation: in Afghanistan, Algeria, Angola, Australia, Bahrain, Bangladesh, Botswana, Brunei Darussalam, Cameroon, Chad, China, Congo, the Democratic People's Republic of Korea, Egypt, Gabon, Guatemala, Guinea, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kenya, Kuwait, Lesotho, Lebanon, Malawi, Malaysia, Mali, Mauritania, Morocco, Niger, Oman, Pakistan, the Philippines, Qatar, the Republic of Korea, Saudi Arabia, Senegal, Singapore, Somalia, Sri Lanka, Sudan, Swaziland, Syria, Tanzania, Thailand, the United Arab Emirates and Yemen, the band 14 14.3 GHz is also allocated to the fixed service on a primary basis.
- 858 (ORB-88) The band 14 14.5 GHz may be used, within the fixed-satellite service (Earth-to-space), for feeder links for the broadcasting-satellite service, subject to coordination with other networks in the fixed-satellite service. Such use of feeder links is reserved for countries outside Europe.
- The band 14 14.5 GHz is also allocated to the land mobile-satellite service (Earth-to-space) on a secondary basis.
- (WARC-92) Additional allocation: in Austria, Belgium, Denmark, the Federal Republic of Germany, Finland, France, Greece, Iceland, Ireland, Italy, Jordan, Libya, Liechtenstein, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and Yugoslavia, the band 14.25 14.3 GHz is also allocated to the fixed service on a primary basis.
- Additional allocation: in Japan, Pakistan, Thailand and the United Kingdom, the band 14.25 14.3 GHz is also allocated to the mobile, except aeronautical mobile, service on a primary basis.

- In making assignments to stations of other services to which the band 14.47 14.5 GHz is allocated, administrations are urged to take all practicable steps to protect spectral line observations of the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos.343 and 344 and Article 36).
- (ORB-88) The use of the band 14.5 14.8 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service. This use is reserved for countries outside Europe.
- All emissions in the band 15.35 15.4 GHz are prohibited, except those provided for by No. 865.
- Additional allocation: in Afghanistan, Bahrain, Cameroon, Egypt, Guinea, Iran, Iraq, Israel, Kuwait, Lebanon, Libya, Pakistan, Qatar, Saudi Arabia, Somalia, Syria, the United Arab Emirates and Yugoslavia, the band 15.35 15.4 GHz is also allocated to the fixed and mobile services on a secondary basis.
- (WARC-92) Additional allocation: in Afghanistan, Algeria, Angola, Austria, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Chad, Congo, Costa Rica, Egypt, El Salvador, Finland, Guatemala, India, Indonesia, Iran, Jordan, Kuwait, Libya, Malawi, Malaysia, Morocco, Mozambique, Nepal, Nicaragua, Oman, Pakistan, Qatar, Saudi Arabia, Singapore, Somalia, Sri Lanka, Sudan, Swaziland, Sweden, Tanzania, Thailand, the United Arab Emirates, Yemen and Yugoslavia, the band 15.7 17.3 GHz is also allocated to the fixed and mobile services on a primary basis.
- Additional allocation: in Israel, the band 15.7 17.3 GHz is also allocated to the fixed and mobile services on a primary basis. These services shall not claim protection from, or cause harmful interference to, services operating in accordance with the Table in countries other than those included in No. 866.
- (WARC-92) Additional allocation: in Afghanistan, Algeria, Angola, Austria, Bahrain, Bangladesh, Cameroon, Costa Rica, El Salvador, Finland, the Federal Republic of Germany, Guatemala, Honduras, India, Indonesia, the Islamic Republic of Iran, Iraq, Israel, Japan, Jordan, Kuwait, Libya, Nepal, Nicaragua, Oman, Pakistan, Qatar, Saudi Arabia, Sri Lanka, Sudan, Sweden, Thailand, the United Arab Emirates and Yugoslavia, the band 17.3 17.7 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits given in Nos. 2505 and 2508 shall apply.
- 868A (WARC-92) In the band 17.3 17.8 GHz, sharing between the fixed-satellite service (Earth-to-space) and the broadcasting-satellite service shall also be in accordance with the provisions of section 1 of Annex 4 of Appendix 30A.
- (ORB-85) The use of the band 17.3 18.1 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service. For the use of the band 17.3 17.8 GHz in Region 2 by the feeder links for the broadcasting-satellite service in the band 12.2 12.7 GHz, see Article 15A.

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- (WARC-92) In Region 2, the allocation to the broadcasting-satellite service in the band 17.3 17.8 GHz shall come into effect on 1 April 2007. After that date, use of the fixed-satellite (space-to-Earth) service in the band 17.7 17.8 GHz shall not claim protection from and shall not cause harmful interference to operating systems in the broadcasting-satellite service.
- 869B **(WARC-92)** In Region 2, the allocation of the band 17.7 17.8 GHz to the mobile service is on a primary basis until 31 March 2007.
- The band 18.1 18.3 GHz is also allocated to the meteorological-satellite service (space-to-Earth) on a primary basis. Its use is limited to geostationary satellites and shall be in accordance with the provisions of No. 2578.
- 870A (WARC-92) The use of the band 18.1 18.4 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service.
- (WARC-92) Alternative allocation: in the Czech and Slovak Federal Republic, Denmark, the Federal Republic of Germany, Greece, Poland, the United Arab Emirates and the United Kingdom, the band 18.1 18.4 GHz is allocated to the fixed, fixed-satellite (space-to-Earth) and mobile services on a primary basis. The provisions of No. 870 also apply.
- In making assignments to stations in the fixed and mobile services, administrations are invited to take account of passive sensors in the earth-exploration satellite and space research services operating in the band 18.6 18.8 GHz. In this band, administrations should endeavour to limit as far as possible both the power delivered by the transmitter to the antenna and the e.i.r.p. in order to reduce the risk of interference to passive sensors to the minimum.
- In assigning frequencies to stations in the fixed-satellite service in the direction space-to-Earth, administrations are requested to limit as far as practicable the power flux-density at the Earth's surface in the band 18.6 18.8 GHz, in order to reduce the risk of interference to passive sensors in the earth exploration-satellite and space research services.
- (WARC-92) Additional allocation: in Afghanistan, Algeria, Angola, Bahrain, Bangladesh, Brazil, Brunei Darussalam, Cameroon, Chad, China, the Congo, Costa Rica, Egypt, Gabon, Guatemala, Guinea, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kenya, Kuwait, Lebanon, Malaysia, Mali, Mauritania, Morocco, Nepal, Niger, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Republic of Korea, Saudi Arabia, Singapore, Somalia, Sri Lanka, Sudan, Syria, Tanzania, Thailand, Togo, Tunisia, the United Arab Emirates and Zaire, the band 19.7 21.2 GHz is also allocated to the fixed and mobile services on a primary basis. This additional use shall not impose any limitation on the power flux-density of space stations in the fixed-satellite service in the band 19.7 20.2 GHz where such allocation to the mobile-satellite service is on a primary basis in the latter band.

- 873A (WARC-92) In order to facilitate interregional coordination between networks in the mobile-satellite and fixed-satellite services, carriers in the mobile-satellite service that are most susceptible to interference shall, to the extent practicable, be located in the higher parts of the bands 19.7 20.2 GHz and 29.5 30 GHz.
- (WARC-92) In the bands 19.7 20.2 GHz and 29.5 30 GHz in Region 2, and in the bands 20.1 20.2 GHz and 29.9 30 GHz in Regions 1 and 3, networks which are both in the fixed-satellite service and in the mobile-satellite service may include links between earth stations at specified or unspecified points or while in motion, through one or more satellites for point-to-point and point-to-multipoint communications.
- 873C **(WARC-92)** In the bands 19.7 20.2 GHz and 29.5 30 GHz, the provisions of No. **953** do not apply with respect to the mobile-satellite service.
- (WARC-92) The allocation to the mobile-satellite service is intended for use by networks which use narrow spot-beam antennas and other advanced technology at the space stations. Administrations operating systems in the mobile-satellite service in the band 19.7 20.1 GHz in Region 2 and in the band 20.1 20.2 GHz shall take all practicable steps to ensure the continued availability of these bands for administrations operating fixed and mobile systems in accordance with the provisions of No. 873.
- 873E **(WARC-92)** The use of the bands 19.7 20.1 GHz and 29.5 29.9 GHz by the mobile-satellite service in Region 2 is limited to satellite networks which are both in the fixed-satellite service and in the mobile-satellite service as described in No. **873B**.
- (WARC-92) In Regions 1 and 3, the allocation to the broadcasting-satellite service in the band 21.4 22 GHz shall come into effect on 1 April 2007. The use of this band by the broadcasting-satellite service after that date and on an interim basis prior to that date is subject to the provisions of Resolutions 525 (WARC-92).
- 873G (WARC-92) Additional allocation: in Japan, the band 21.4 22 GHz is also allocated to the broadcasting service on a primary basis.
- In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the spectral line observations of the radio astronomy service in the band 22.01 22.21 GHz from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see also Nos. 343 and 344 and Article 36).
- In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference in the band 22.21 22.5 GHz. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see also Nos. 343 and 344 and Article 36).

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- The use of the band 22.21 22.5 GHz by the earth exploration-satellite (passive) and space research (passive) services shall not impose constraints upon the fixed and mobile, except aeronautical mobile, services.
- 877 (WARC-92) SUP
- 878 **(WARC-92)** SUP
- In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the spectral line observations of the radio astronomy service in the bands 22.81 22.86 GHz and 23.07 23.12 GHz from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see also Nos. 343 and 344 and Article 36).
- All emissions in the band 23.6 24 GHz are prohibited.
- The band 24 24.25 GHz (centre frequency 24.125 GHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 1815.
- 881A **(WARC-92)** Use of the 25.25 27.5 GHz band by the inter-satellite service is limited to space research and Earth exploration-satellite applications, and also transmissions of data originating from industrial and medical activities in space.
- (WARC-92) Space services using non-geostationary satellites operating in the inter-satellite service in the band 27 27.5 GHz are exempt from the provisions of No. 2613.
- The band 29.95 30 GHz may be used for space-to-space links in the earth exploration-satellite service for telemetry, tracking and control purposes on a secondary basis.
- (WARC-92) Additional allocation: the bands 27.500 27.501 GHz and 29.999 30.000 GHz are also allocated to the fixed-satellite service (space-to-Earth) on a primary basis for the beacon transmissions intended for up-link power control. Such space-to-Earth transmissions shall not exceed an equivalent isotropically radiated power (e.i.r.p.) of +10 dBW in the direction of adjacent satellites on the geostationary-satellite orbit. In the band 27.500 27.501 GHz, such space-to-Earth transmissions shall not produce a power flux-density in excess of the values specified in No.2578 on the Earth's surface.
- 882B **(WARC-92)** *Additional allocation:* the band 27.501 29.999 GHz is also allocated to the fixed-satellite service (space-to-Earth) on a secondary basis for beacon transmissions intended for up-link power control.

- 882C (WARC-92) In the band 28.5 30 GHz, the earth exploration-satellite service is limited to the transfer of data between stations and not to the primary collection of information by means of active or passive sensors.
- 882D (WARC-92) The band 27.5 30 GHz may be used by the fixed-satellite service (Earth-to-space) for the provision of feeder links for the broadcasting-satellite service.
- 882E **(WARC-92)** The inter-satellite service shall not claim protection from harmful interference from airport surface detection equipment stations of the radionavigation service.
- 882F (WARC-92) Additional allocation: in Japan, the band 24.65 25.25 GHz is also allocated to the radionavigation service on a primary basis until 2008.
- (WARC-92) In the band 24.75 25.25 GHz, feeder links to stations of the broadcasting-satellite service shall have priority over other uses in the fixed-satellite service (Earth-to-space). Such other uses shall protect and shall not claim protection from existing and future operating feeder-link networks to such broadcasting satellite stations.
- (WARC-92) Additional allocation: in Afghanistan, Algeria, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Chad, China, the Congo, Egypt, Ethiopia, Guinea, India, Indonesia, Iran, Iraq, Israel, Japan, Jordan, Kenya, Kuwait, Lebanon, Malaysia, Mali, Mauritania, Morocco, Nepal, Niger, Pakistan, Qatar, the Republic of Korea, Saudi Arabia, Singapore, Somalia, Sri Lanka, Sudan, Syria, Thailand and the United Arab Emirates, the band 29.5 31 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits specified in Nos. 2505 and 2508 shall apply.
- (ORB-88) In the band 31 31.3 GHz, the power flux-density limits specified in No.**2582** shall apply to the space research service.
- (WARC-92) Different category of service: in Bulgaria, Cuba, Czechoslovakia, the German Democratic Republic, Mongolia, Poland and the U.S.S.R., the allocation of the band 31 31.3 GHz to the space research service is on a primary basis (see No. 425).
- In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference in the band 31.2 31.3 GHz. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. **343** and **344** and Article **36**).
- All emissions in the band 31.3 31.5 GHz are prohibited.

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- In Regions 1 and 3, in making assignments to stations of other services to which the band 31.5 31.8 GHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. **343** and **344** and Article **36**). In Region 2, all emissions in the band 31.5 31.8 GHz are prohibited.
- (WARC-92) Different category of service: in Bulgaria, Czechoslovakia, Egypt, the German Democratic Republic, Mongolia, Poland, Romania and the U.S.S.R., the allocation of the band 31.5 31.8 GHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No.425).
- 890 (WARC-92) SUP
- 891 (WARC-92) SUP
- Subject to agreement obtained under the procedure set forth in Article 14, the band 31.8 33.8 GHz may also be used in Japan for space-to-Earth transmissions in the fixed-satellite service up to 31 December 1990.
- (WARC-92) In designing systems for the inter-satellite and radionavigation services in the band 32 33 GHz, and for the space research service (deep space) in the band 31.8 32.3 GHz, administrations shall take all necessary measures to prevent harmful interference between these services, bearing in mind the safety aspects of the radionavigation service (see Recommendation 707 (WARC-79)).
- (WARC-92) Additional allocation: in Afghanistan, Bahrain, Bangladesh, Egypt, Finland, Gabon, Guinea, Indonesia, Iran, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Libya, Malawi, Malaysia, Mali, Malta, Mauritania, Morocco, Nepal, Niger, Nigeria, Oman, Pakistan, the Philippines, Qatar, Saudi Arabia, Senegal, Singapore, Somalia, Spain, Sri Lanka, Sudan, Sweden, Syria, Tanzania, Thailand, Togo, Tunisia, the United Arab Emirates, Yemen and Zaire, the band 33.4 36 GHz is also allocated to the fixed and mobile services on a primary basis.
- 895 (WARC-92) SUP
- 896 (WARC-92) Different category of service: in Bulgaria, Cuba, Czechoslovakia, the German Democratic Republic, Mongolia, and the U.S.S.R., the allocation of the band 34.7 35.2 GHz to the space research service is on a primary basis (see No. 425).
- 897 Radars located on spacecraft may be operated on a primary basis in the band 35.5 35.6 GHz.
- In making assignments to stations of other services, administrations are urged to take all practicable steps to protect the spectral line observations of the radio astronomy service in the band 36.43 36.5 GHz from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

#### 899 (WARC-92) SUP

- In making assignments to stations of other services to which the band 42.5 43.5 GHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference, especially in the bands 42.77 42.87 GHz, 43.07 43.17 GHz, and 43.37 43.47 GHz, which are used for spectral line observations of silicon monoxide. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos.343 and 344 and Article 36).
- The allocation of the spectrum for the fixed-satellite service in the bands 42.5 43.5 GHz and 47.2 50.2 GHz for Earth-to-space transmission is greater than that in the band 37.5 39.5 GHz for space-to-Earth transmission in order to accommodate feeder links to broadcasting satellites.
  Administrations are urged to take all practicable steps to reserve the band 47.2 49.2 GHz for feeder links for the broadcasting-satellite service operating in the band 40.5 42.5 GHz.
- 902 In the bands 43.5 47 GHz, 66 71 GHz, 95 100 GHz, 134 142 GHz, 190 200 GHz and 252 265 GHz, stations in the land mobile service may be operated subject to not causing harmful interference to the space radiocommunication services to which these bands are allocated (see No.435).
- 903 In the bands 43.5 47 GHz, 66 71 GHz, 95 100 GHz, 134 142 GHz, 190 200 GHz and 252 265 GHz, satellite links connecting land stations at specified fixed points are also authorized when used in conjunction with the mobile-satellite service or the radionavigation-satellite service.
- The bands 48.94 49.04 GHz and 97.88 98.08 GHz are also allocated to the radio astronomy service on a primary basis for spectral line observations. In making assignments to stations of other services to which these bands are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos.343 and 344 and Article 36).
- In the band 48.94 49.04 GHz, all emissions from airborne stations are prohibited.
- 906 In the bands 51.4 54.25 GHz, 58.2 59 GHz, 64 65 GHz and 72.77 72.91 GHz, radio astronomy observations may be carried out under national arrangements. Administrations are urged to take all practicable steps to protect radio astronomy observations in these bands from harmful interference.
- 907 In the bands 51.4 54.25 GHz, 58.2 59 GHz, 64 65 GHz, 86 92 GHz. 105 116 GHz and 217 231 GHz, all emissions are prohibited.
- 908 Additional allocation: in the Federal Republic of Germany, Japan and the United Kingdom, the band 54.25 58.2 GHz is also allocated to the radiolocation service on a primary basis.

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- In the bands 54.25 58.2 GHz, 59 64 GHz, 116 134 GHz, 170 182 GHz and 185 190 GHz, stations in the aeronautical mobile service may be operated, subject to not causing harmful interference to the inter-satellite service (see No. 435).
- In the bands 59 64 GHz and 126 134 GHz, airborne radars in the radiolocation service may be operated subject to not causing harmful interference to the inter-satellite service (see No.435).
- The band 61 61.5 GHz (centre frequency 61.25 GHz) is designated for industrial, scientific and medical (ISM) applications. The use of this frequency band for ISM applications shall be subject to special authorization by the administration concerned in agreement with other administrations whose radiocommunication services might be affected. In applying this provision, administrations shall have due regard to the latest relevant CCIR recommendations.
- 912 In the band 78 79 GHz radars located on space stations may be operated on a primary basis in the earth exploration-satellite service and in the space research service.
- In the band 84 86 GHz, stations in the fixed, mobile and broadcasting services shall not cause harmful interference to broadcasting-satellite stations operating in accordance with the decisions of the appropriate frequency assignment planning conference for the broadcasting-satellite service.
- The band 93.07 93.27 GHz is also used by the radio astronomy service for spectral line observations. In making assignments to stations of the services to which this band is allocated, administrations are urged to take all practicable steps to protect radio astronomy observations from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. **343** and **344** and Article **36**).
- 915 The band 119.98 120.02 GHz is also allocated to the amateur service on a secondary basis.
- The band 122 123 GHz (centre frequency 122.5 GHz) is designated for industrial, scientific and medical (ISM) applications. The use of this frequency band for ISM applications shall be subject to special authorization by the administration concerned in agreement with other administrations whose radiocommunication services might be affected. In applying this provision administrations shall have due regard to the latest relevant CCIR recommendations.
- In the band 140.69 140.98 GHz, all emissions from airborne stations, and from space stations in the space-to-Earth direction, are prohibited.
- The bands 140.69 140.98 GHz, 144.68 144.98 GHz, 145.45 145.75 GHz and 146.82 147.12 GHz are also allocated to the radio astronomy service on a primary basis for spectral line observations. In making assignments to stations of other services to which the bands are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

- 919 The bands 150 151 GHz, 174.42 175.02 GHz, 177 177.4 GHz, 178.2 178.6 GHz, 181 181.46 GHz and 186.2 186.6 GHz are also allocated to the radio astronomy service on a secondary basis for spectral line observations. In making assignments to stations of other services to which these bands are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- 920 Additional allocation: in the United Kingdom, the band 182 185 GHz is also allocated to the fixed and mobile services on a primary basis.
- 921 In the band 182 185 GHz, all emissions are prohibited except for those under the provisions of No. 920.
- The band 244 246 GHz (centre frequency 245 GHz) is designated for industrial, scientific and medical (ISM) applications. The use of this frequency band for ISM applications shall be subject to special authorization by the administration concerned in agreement with other administrations whose radiocommunication services might be affected. In applying this provision, administrations shall have due regard to the latest relevant CCIR recommendations.
- The bands 250 251 GHz and 262.24 262.76 GHz are also allocated to the radio astronomy service on a primary basis for spectral line observations. In making assignments to stations of other services to which these bands are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- The band 257.5 258 GHz is also allocated to the radio astronomy service on a secondary basis for spectral line observations. In making assignments to stations of other services to which the band is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- In Argentina, Finland, the Federal Republic of Germany, France, India, Italy, the Netherlands, Spain and Sweden, the band 261 265 GHz is also allocated to the radio astronomy service on a primary basis. In making assignments to stations of other services to which the band is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).

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- In making assignments to stations of other services to which the band 265 275 GHz is allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference, especially in the bands 265.64 266.16 GHz, 267.34 267.86 GHz and 271.74 272.26 GHz, which are used for spectral line observations. Emissions from space or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343 and 344 and Article 36).
- The frequency band 275 400 GHz may be used by administrations for experimentation with, and development of various active and passive services. In this band, a need has been identified for the following spectral line measurements for passive services:
  - Radio astronomy service: 278 280 GHz and 343 348 GHz;
  - Space research service (passive) and earth exploration-satellite service (passive): 275 277 GHz, 300 302 GHz, 324 326 GHz, 345 347 GHz, 363 365 GHz and 379 381 GHz.

Future research in this largely unexplored spectral region may yield additional spectral lines and continuum bands of interest to the passive services. Administrations are urged to take all practicable steps to protect these passive services from harmful interference until the next competent world administrative radio conference.

928 NOT allocated

to

952

#### CANADIAN FOOTNOTES

The complete set of Canadian footnotes to the Canadian Table are listed hereafter. This includes the new Canadian footnotes and any modifications or suppression of footnotes. Changes to the Canadian footnotes are identified by the indicator (CAN-94).

- Users of frequencies below 9 kHz shall ensure that no harmful interference is caused to the services to which the bands above 9 kHz are allocated.
- C2 Scientific researchers using frequencies below 9 kHz are urged to advise the Department in order that such research may be afforded all practicable protection from harmful interference.
- Provided no harmful interference is caused to the maritime mobile service, the frequencies between 2 065 kHz and 2 107 kHz may be used by stations of the fixed service communicating only within Canada's national borders, and whose mean power does not exceed 50 watts.

- Provided no harmful interference is caused to the maritime mobile service, the bands 6 200 6 213.5 kHz and 6 220.5 6 525 kHz may be used exceptionally by stations of the fixed service communicating only within Canada's national borders, and whose mean power does not exceed 50 watts.
- C5 For the exclusive use of the Government of Canada.
- C5A The use of the radiolocation service is limited to Government of Canada shipborne radars. These operations are not permitted on inland waters of Canada.
- The band 10 100 10 150 kHz is allocated to the fixed service on a primary basis worldwide. In Canada, the band is allocated exclusively to the amateur service. Canadian amateur operations shall not cause interference to fixed service operations of other administrations and if such interference should occur, the amateur service may be required to cease operations. The amateur service in Canada may not claim protection from interference by the fixed service operations of other administrations.
- C7 (CAN-94) SUP
- C8 Radio astronomy observations are carried out in the band 322 328.6 MHz, and such operations will be protected from interference to the extent possible.
- C9 (CAN-94) Within Canada and after 1 April 2007, existing services may continue to operate, providing that harmful interference is not caused to existing or planned broadcasting services.
- On the condition that harmful interference is not caused to the mobile or the fixed services, the Department may authorize frequencies between 420 and 430 MHz for use on a non-protected basis by the radiolocation service in coastal and off-shore regions of Canada where such radio-location operations may not be fully accommodated in the 430 450 MHz frequency band.
- C11 Television broadcast stations licensed prior to 1 January 1979 to operate in the frequency band 806 890 MHz (channels 70 to 83) will continue to operate on a primary basis until their reassignment to a lower frequency.
- C12 (CAN-94) SUP
- C12A (CAN-94) SUP
- C13 (CAN-94) SUP
- C14 Maritime radionavigation operations in the band 2 850 2 900 MHz are limited to shore-based radars.
- C15 (CAN-94) SUP (see C49 and C50)

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- Users are urged, in their planning of operations in the band 10.7 10.95 GHz for the fixed-satellite service, to give all practicable protection to the passive operations in the adjacent band 10.6 10.7 GHz.
- In Region 2, in the band 11.7 12.2 GHz, transponders on space stations in the fixed-satellite service may be used additionally for transmissions in the broadcasting-satellite service, provided that such transmissions do not have a maximum e.i.r.p. greater than 53 dBW per television channel and do not cause greater interference or require more protection from interference than the coordinated fixed-satellite service frequency assignments. With respect to the space services, this band shall be used principally for the fixed-satellite service. The upper limit of this band shall be modified in accordance with the decisions of the 1983 regional administrative radio conference for Region 2 (see No.841).
- In Region 3, the band 12.1 12.5 GHz is also allocated to the fixed-satellite (space-to-Earth) service limited to national and sub-regional systems. The power flux-density limits in No. **2574** shall apply to this frequency band. The introduction of the service in relation to the broadcasting-satellite service in Region 1 shall follow the procedures specified in Article **7** or Appendix **30**, with the applicable frequency band extended to cover 12.1 12.5 GHz.
- The operation of low-power mobile or fixed communications equipment is permitted in the band, but this equipment must not cause interference to the radionavigation-satellite service.
- In Region 2, in the band 12.3 12.7 GHz, assignments to stations of the broadcasting-satellite service made available in the plan to be established by the 1983 Regional Administrative Radio Conference for Region 2 may also be used for transmissions in the fixed-satellite service (space-to-Earth), provided that such transmissions do not cause more interference or require more protection from interference than the broadcasting-satellite service transmissions operating in accordance with the plan. With respect to the space services, this band shall be used principally for the broadcasting-satellite service. The lower limit of this band shall be modified in accordance with the decisions of that conference for Region 2 (see No.841).
- C21 (CAN-94) SUP (see C49 and C50)
- C22 In the band 164 168 GHz, all emissions are prohibited.
- C23 The bands 250 251 GHz and 262.24 262.76 GHz are also allocated to the radioastronomy service on a primary basis for spectral line observations.
- C24 In the band 250 252 GHz, all emissions are prohibited.
- The bands 4 460 4 540 MHz and 4 900 4 990 MHz are also allocated to the fixed and mobile services on a primary basis, for the exclusive use of the Government of Canada.
- C26 (CAN-94) In the band 148 149.9 MHz, applicants for a licence to provide mobile satellite service in Canada must demonstrate that they have adopted measures to avoid causing harmful interference to fixed and mobile services.

- C27 (CAN-94) In the band 1 370 1 400 MHz, the fixed and mobile services must take into account existing and future high-power radar systems.
- C28 (CAN-94) In the band 1 452 1 492, until at least 1 January 2000, the broadcasting-satellite service shall not cause harmful interference to the fixed service. After this date, the fixed service may continue to operate provided that it neither causes harmful interference to, nor is affected by, the broadcasting satellite service beam assignments when the broadcasting-satellite service is implemented in Canada. This footnote will be reviewed prior to 1 January 2000.
- C29 (CAN-94) Existing fixed stations may continue to use the band 1 452 1 492 MHz provided they protect, and not claim protection from, stations operating in the broadcasting service which are in accordance with a domestic allotment plan.
- C30 (CAN-94) Stations in the broadcasting service shall be implemented in accordance with a domestic allotment plan which takes into account stations in the fixed service, to the extent possible.
- C31 (CAN-94) In the band 1 515 1 525 MHz, the use of the fixed service may be reduced to secondary upon implementation of the mobile-satellite service in Canada.
- C32 (CAN-94) In the band 1 675 1 700 MHz, up to 10 MHz of the mobile satellite allocation may be implemented, paired with the band 1 515 1 525 MHz and subject to No.735A.
- C33 (CAN-94) In the bands 1 670 1 675 MHz and 1 800 1 805 MHz, the use of aeronautical public correspondence in accordance with No. 740A may be the subject of a future policy review.
- C34 (CAN-94) The use of the bands 1 429 1 452 MHz, 1 492 1 525 MHz and 2 010 2 025 MHz by the mobile service is withheld.
- C35 (CAN-94) Existing fixed stations operating in the band 1 850 1 990 MHz will have priority over the mobile service until 1 July 1997. After this date, specific fixed stations will need to be displaced where necessary to enable the implementation of new mobile systems such as personal communications. The displacement of fixed stations as well as the implementation of new mobile systems will be governed by spectrum utilization policies.
- C35A (CAN-94) In the bands 1 990 2 010 MHz and 2 110 2 200 MHz, the implementation of the mobile service will be the subject of future policy review.
- C36 (CAN-94) In the bands 1 970 2 010 MHz and 2 160 2 200 MHz, the fixed service may become secondary to the mobile-satellite service in certain sub-bands as may be determined by future policy review.

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- C37 (CAN-94) Station operators in the band 2 400 2 500 MHz should be aware of the potential interference from microwave ovens and licence-exempt low-power radio devices, particularly in urban areas.
- C38 (CAN-94) In the band 2 483.5 2 500 MHz, the fixed service may be reduced to secondary status upon implementation of the mobile satellite service in Canada.
- C39 (CAN-94) The use of the bands 2 500 2 520 MHz and 2 670 2 690 MHz, by the mobile satellite service which was allocated at WARC-92, may be the subject of a future policy review for use in Canada after 2005.
- (CAN-94) Feeder links to broadcasting-satellite (sound) space stations operating in the band 1 452 1 492 MHz shall be implemented in the band 7 025 7 075 MHz to the extent possible before a different fixed-satellite (Earth-to-space) band is so used. Use of the fixed-satellite (Earth-to-space) allocation in the 7 025 7 075 MHz band is limited to this application, except for general fixed-satellite use by inter-regional fixed-satellite networks.
- C41 (CAN-94) In the use of the fixed-satellite service by networks that are used principally for domestic fixed-satellite applications, the band 13.75 14.0 GHz in the Earth-to-space direction shall be used in conjunction with the band 11.45 11.7 GHz in the space-to-Earth direction.
- C42 (CAN-94) The band 15.7 16.2 GHz is also allocated on a primary basis to the radionavigation service, the use of which is limited to Airport Surface Detection Equipment (ASDE).
- C43 (CAN-94) In the bands 17.3 17.8 GHz and 17.9 18.4 GHz, the fixed-satellite service (Earth-to-space) is limited to feeder links to broadcasting-satellite space stations operating in the 12.2 12.7 GHz band (see C47).
- C44 (CAN-94) Feeder links to broadcasting-satellite space stations operating in the band 17.3 17.8 GHz shall be implemented in the band 24.75 25.25 GHz.
- C45 (CAN-94) In the band 17.7 17.8 GHz, Canadian stations in the fixed service shall not claim protection from and shall not cause harmful interference to Canadian domestic stations operating in the broadcasting-satellite service after 1 April 2007. In addition, to protect broadcasting-satellite receiving stations in Canada and in the United States, the aggregate power flux density from fixed systems of one country shall not be greater than -109 dB(W/m²) over any 1 MHz band in any area within the other country where the broadcasting-satellite service is used.
- C46 (CAN-94) In the band 17.7 17.8 GHz, Canadian broadcasting-satellite space stations shall not radiate into territory of the United States administration a power flux density greater than that specified by ITU Regulation 2578. Similarly, to protect Canadian fixed systems, transmissions from broadcasting-satellite space stations of United States operators can be expected to be limited in the same way in Canadian territory.

- (CAN-94) Feeder links to broadcasting-satellite systems operating in the 12.2 12.7 GHz band are limited to the band 17.3 17.8 GHz, unless it is necessary to use another band because of the operation or planned operation of a (downlink) broadcasting-satellite system in the 17.3 17.8 GHz band. The choice of which feeder-link band to use shall take into account the planned lifetime of the associated space-station. If for the above reason the band 17.3 17.8 is not available, either the band 17.9 18.4 GHz or the band 24.75 25.25 GHz shall be used. The choice between these latter two bands should take into account the need to coordinate the band 17.9 18.4 GHz with other primary services, and the need to use the band 24.75 25.25 GHz for the provision of feeder links to broadcasting-satellite systems operating in the band 17.3 17.8 GHz.
- C48 (CAN-94) Non-geostationary mobile-satellite systems that operate in frequency bands
  1 610 1 626.5 MHz, 1 970 2 010 MHz, 2 160 2 200 MHz and 2 483.5 2 500 MHz shall use a portion
  of the frequency range 17.8 19.7 GHz in the space-to-Earth direction and a portion of the frequency
  range 27.5 29.5 GHz in the Earth-to-space direction for their feeder links, unless otherwise agreed with
  the Department.
- C49 (CAN-94) In the bands 7 250 7 750 MHz and 7 900 8 400 MHz, and in all or a portion of the bands 20.2 21.2 GHz, 30 31 GHz and 39.5 40.5 GHz as required, the fixed-satellite service is limited to use by the Government of Canada.
- C50 (CAN-94) In the bands 7 250 7 300 MHz, 7 975 8 025 MHz, and 43.5 45.5 GHz, and in all or a portion of the bands 20.2 21.2 GHz, 30 31 GHz and 39.5 40.5 GHz as required, the mobile-satellite service is limited to use by the Government of Canada.

#### **CHART OF ITU REGIONS**

Tropical Zone

